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seq_documentation_block:
; Sequence 2, Application US/09121425
; Patent No. 6153418
; GENERAL INFORMATION:
; APPLICANT: Lehmann, Martin
; TITLE OF INVENTION: Consensus Phytases
; FILE REFERENCE: consensus phytases 13239
; CURRENT APPLICATION NUMBER: US/09/121,425
; EARLIER FILING DATE: 1998-07-23
; EARLIER APPLICATION NUMBER: EPO 97112688.3
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 467
; TYPE: prt
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:consensus
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 ; Sequence 33, Application US/08868435
 ; Patent No. 6291221
 ; GENERAL INFORMATION:
 ; APPLICANT: Van Loon, Adolphus
 ; APPLICANT: Mitchell, David
 ; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
 ; NUMBER OF SEQUENCES: 35
 ; CORRESPONDENCE ADDRESSES:
 ; ADDRESSEE: Hoffmann-La Roche Inc.
 ; STREET: 340 Kingsland Street
 ; CITY: Nutley
 ; STATE: New Jersey
 ; COUNTRY: United States of America
 ; ZIP: 07110
 ; COMPUTER READABLE FORM:
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 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/868,435
 ; FILING DATE:
 ; CLASSIFICATION:
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 08/744,231
 ; FILING DATE:
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Kass, Alan P
 ; REGISTRATION NUMBER: 32142
 ; REFERENCE/DOCKET NUMBER: Case Docket 9339
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (201) 235-4205
 ; TELEFAX: (201) 235-2363
 ; INFORMATION FOR SEQ ID NO: 33:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 465 amino acids
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1 FILING DATE: 19-MAR-1990
2 PRIOR APPLICATION DATA:
3 APPLICATION NUMBER: US 07/044,077
4 FILING DATE: 29-APR-1987
5 PRIOR APPLICATION DATA:
6 APPLICATION NUMBER: UK 8610600
7 FILING DATE: 30-APR-1986
8 ATTORNEY/AGENT INFORMATION:
9 NAME: Cimbala, Michele A.
10 REGISTRATION NUMBER: 33,851
11 REFERENCE/DOCKET NUMBER: 1050,0240004
12 TELECOMMUNICATION INFORMATION:
13 TELEPHONE: (202) 371-2600
14 TELEFAX: (202) 371-2540
15 INFORMATION FOR SEQ ID NO: 8:
16 SEQUENCE CHARACTERISTICS:
17 LENGTH: 467 amino acids
18 TYPE: amino acid
19 TOPOLOGY: linear
20 MOLECULE TYPE: protein
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25     ratio: 4.453         gaps: 0
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; Sequence 8, Application US/08609426A
; Patent No. 5830733
GENERAL INFORMATION:
; APPLICANT: Nevalainen, Helena K.M.
; APPLICANT: Palohelmo, Marja T.
; APPLICANT: Miettinen-Oinonen, Arja S.K.
; APPLICANT: Forckeli, Tuula K.
; APPLICANT: Cantrell, Michael
; APPLICANT: Piddington, Christopher S.
; APPLICANT: Rambossek, John A.
; APPLICANT: Turunen, Marja K.
; APPLICANT: Fagerstr m, Richard B.
; APPLICANT: Houston, Christine S.
; TITLE OF INVENTION: Production of Phytase Degrading Enzymes
; TIME OF INVENTION: in Trichoderma
; NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox
; STREET: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/609,426A
; FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/923,724
; FILING DATE: 31-JUL-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: UK 8610600
; FILING DATE: 30-APR-1986
ATTORNEY/AGENT INFORMATION:
; NAME: Reed, Grant E.
; REGISTRATION NUMBER: P-41,264
; REFERENCE/DOCKET NUMBER: 1050.0080001
TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 8:
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; LENGTH: 467 amino acids
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; Patent No. 5863533
; GENERAL INFORMATION:
; APPLICANT: Robert F.M. Van Gorcom
; APPLICANT: Willem Van Hartingsveldt
; APPLICANT: Petrus A. Van Paridon
; APPLICANT: Annemarie E. Veenstra
; APPLICANT: Rudolf G.M. Luttin
; APPLICANT: Gerardus Sellen
; TITLE OF INVENTION: Cloning and Expression of Microbial
; TITLE OF INVENTION: Phytase
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Morrison & Foerster
; STREET: 2000 Pennsylvania Ave. N.W., Suite 5500
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; SOFTWARE:
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/419,448
; FILING DATE: 10-APR-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H.
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 24615-20026.10
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; INFORMATION FOR SEQ ID NO: 32:

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; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
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US-08-419-448-32

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; Patent No. 5866118
;
; GENERAL INFORMATION:
; APPLICANT: Berka, Randy M.
; APPLICANT: Ray, Michael W.
; APPLICANT: Klotz, Alan V.
; TITLE OF INVENTION: Polypeptides Having Phytase Activity
; TITLE OF INVENTION: and Nucleic Acids Encoding Same
; NUMBER OF SEQUENCES: 5

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Mon Jul 8 08:27:53 2002

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GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

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Run on: July 3, 2002, 09:30:41 ; Search time 39.56 Seconds

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Searched: 231628 seqs, 2442594 residues

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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

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; TITLE OF INVENTION: Consensus Phytases
; FILE REFERENCE: Consensus phytases 13239
; CURRENT APPLICATION NUMBER: US/09/121,425
; CURRENT FILING DATE: 1998-07-23
; EARLIER APPLICATION NUMBER: EPO 97112688.3
; EARLIER FILING DATE: 1997-07-24
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
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US-09-121-425-1

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; Patent No. 6153418
; GENERAL INFORMATION:
; APPLICANT: Lehmann, Martin
; TITLE OF INVENTION: Consensus Phytases
; FILE REFERENCE: consensus phytases 13239
; CURRENT APPLICATION NUMBER: US/09/121.425
; EARLIER FILING DATE: 1998-07-23
; EARLIER APPLICATION NUMBER: EPO 97112688.3
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 2
; LENGTH: 467
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:consensus
US-09-121-425-2

Query Match 88.0%; Score 2173; DB 4; Length 467;
Best Local Similarity 85.2%; Pred. No. 8.6e-221;
Matches 415; Conservative 13; Mismatches 19; Indels 40; Gaps 2;
QY 1 MGVEVLLSTLTLPSTSGTALGPRGNSHSCDVGQYOCPEISHMGQYSPFSLADE 60
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QY 61 SAISPDVKGCRVTFFVOYLSRHGARYTSKSKYSALIAITOKNATARKGYAFILKTYN 120
DB 61 SAISPDVKGCRVTFFVOYLSRHGARYTSKSKYSALIAITOKNATARKGYAFILKTYN 100
QY 121 YTLGADDLTPREGOMVNSGKIFRRYKALARKIVPFRASGSDRYIASAEKPIEGFOSA 180
DB 101 YTLGADDLTPREGOMVNSGKIFRRYKALARKIVPFRASGSDRYIASAEKPIEGFOSA 160
QY 181 KIADPGANPHOASPVIN-----VIIPEGAGYNNTLDHGLTAFEE 220
DB 161 KIADPGANPHOASPVIN-----VIIPEGAGYNNTLDHGLTAFEE 220
QY 221 SELGADVANTFAVAPFIRARLEAHLPGVNLTDDEVNLMDCPPTVARTSDATQLSP 280
DB 221 SELGADVANTFAVAPFIRARLEAHLPGVNLTDDEVNLMDCPPTVARTSDATQLSP 280
QY 281 FCDLFTHEMIOYDYLQSLGKYGYGAGNPLGPAQGVGFVNELIARLTHSPVDHTSTNH 340
DB 281 FCDLFTHEMIOYDYLQSLGKYGYGAGNPLGPAQGVGFVNELIARLTHSPVDHTSTNH 340
QY 341 TLDSPNAPFPLNATLYADFSHDNTVMSFFPALGLYNGKPLSTSVSIEETGVAASWT 400
DB 341 TLDSPNAPFPLNATLYADFSHDNTVMSFFPALGLYNGKPLSTSVSIEETGVAASWT 400
QY 401 VPPAARAYVEMOCEAEKEPELVRLVNDRVVPLHGGVOKLGRCKRDPVEGLSFARSGG 460
DB 401 VPPAARAYVEMOCEAEKEPELVRLVNDRVVPLHGGVOKLGRCKRDPVEGLSFARSGG 460
QY 461 NWEECEFA 467
DB 461 NWEECEFA 467

DB 461 NWEECEFA 467
RESULT 3
US-08-868-435-33
; Sequence 33, Application US/08868435
; Patent No. 6291221
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: United States of America
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/868,435
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/744,231
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kass, Alan P
; REGISTRATION NUMBER: 32142
; REFERENCE/DOCKET NUMBER: Case Docket 9339
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-4205
; TELEFAX: (201) 235-2363
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 465 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 104
; OTHER INFORMATION: /note="potential N-glycosylation site"
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 119
; OTHER INFORMATION: /note="potential N-glycosylation site"
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 205
; OTHER INFORMATION: /note="potential N-glycosylation site"
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; LOCATION: 228
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; FEATURE:
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; LOCATION: 337
; OTHER INFORMATION: /note="potential N-glycosylation site"
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; LOCATION: 374
; OTHER INFORMATION: /note="potential N-glycosylation site"
US-08-868-435-33

Query Match 77.0%; Score 1902; DB 4; Length 465;
Best Local Similarity 77.1%; Pred. No. 3.6e-192;

Matches	360;	Conservative	37;	Mismatches	68;	Indels	2;	Gaps	2
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QY      1 MGVFVLLSIATLFGSTSTALGPKRNSNSCVDYDGGYOCFPEISHMGQYSEFSLADE 60
Db      1 MVTLLFLLSAAYLLSGRVSAPSAG-SKSCPTVDLGYCCSPATSHMGQYSEFSLADE 59
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QY      241 ARLEAHLPGVNLTDIEDVNLMDMCPEDIVARTSDATQLSPFDLPHEDMIQDYDQSLIG 300
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QY      301 KYTGGAGAGPLCPACQYGVNELLARLTISPQODHTSYNHTLDSNPATPLNATLYADPS 360
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Db      359 HDNSVVSIFFALGLYNGTEPLRTSVESAKELDGYASASVYVFFGARAYETMYQCKSEKER 418
QY      421 LVRVLVNDRAVYVHGGCVDKLGRKRDPFVEGLSFARSGNNMEEGFA 467
Db      419 LVRLALINDRAVPLHGGCDVDKLGRCKLINFVKGLSWARSGNNGEGEFS 465

RESULT      4
US-08-744-231-33
; Sequence 33, Application US/08744231
; Patent No. 6358722
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: United States of America
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/744,231
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/424,757
; FILING DATE: 18-APR-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Kass, Alan P
; REGISTRATION NUMBER: 32142
; REFERENCE/DOCKET NUMBER: Case Docket 9339
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-4205
; TELEFAX: (201) 235-2363
; INFORMATION FOR SEQ ID NO: 33:
; LENGTH: 465 amino acids

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1 TYPE: amino acid
2 TOPOLOGY: linear
3 MOLECULE TYPE: protein
4 FEATURE:
5 NAME/KEY: misc_feature
6 LOCATION: 104
7 OTHER INFORMATION: /note="potential N-glycosylation site"
8 FEATURE:
9 NAME/KEY: misc_feature
10 LOCATION: 119
11 OTHER INFORMATION: /note="potential N-glycosylation site"
12 FEATURE:
13 NAME/KEY: misc_feature
14 LOCATION: 205
15 OTHER INFORMATION: /note="potential N-glycosylation site"
16 FEATURE:
17 NAME/KEY: misc_feature
18 LOCATION: 228
19 OTHER INFORMATION: /note="potential N-glycosylation site"
20 FEATURE:
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22 LOCATION: 337
23 OTHER INFORMATION: /note="potential N-glycosylation site"
24 FEATURE:
25 NAME/KEY: misc_feature
26 LOCATION: 374
27 OTHER INFORMATION: /note="potential N-glycosylation site"
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29 US-08-744-231-33

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Query Match	77.0%;	Score 1902;	DB 4;	Length 465;
Best Local Similarity	77.1%;	Pred. No. 3.6e-192;		
Matches 360;	Conservative 37;	Mismatches 68;	Indels 2;	Gaps 2

[illegible]

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RESULT 5
US-07-923-724-8
; Sequence 8, Application US/07923724
; Patent No. 5780292
; GENERAL INFORMATION:
; APPLICANT: Nevalainen, Helena K.M

APPLICANT: Paloheimo, Maria T.
APPLICANT: Miettinen-Oinonen, Arja S.K.
APPLICANT: Torkkeli, Tuula K.
APPLICANT: Cantrell, Michael
APPLICANT: Piddington, Christopher S.
APPLICANT: Rambosek, John A.
APPLICANT: Turunen, Maria K.
APPLICANT: Fagerstr m, Richard B.
TITLE OF INVENTION: Production of Phytase Degrading Enzymes
NUMBER OF SEQUENCES: 66
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox
STREET: 1100 New York Avenue, Suite 600
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/923,724
FILING DATE: 31-JUL-1992
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/496,155
FILING DATE: 19-MAR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/044,077
FILING DATE: 29-APR-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: UK 8610600
FILING DATE: 30-APR-1986
ATTORNEY/AGENT INFORMATION:
NAME: Cimbalia, Michele A.
REGISTRATION NUMBER: 33,851
REFERENCE/DOCKET NUMBER: 1050.0240004
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-07-923-724-8

Query Match 75.5%; Score 1866; DB 1; Length 467;
Best Local Similarity 74.5%; Pred. No. 2.3e-188;
Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;

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QY 241 ARLEAHLPGVNLDEDEVNIMDMCPFDVAVRTSDATQLSFCDLFTHDEMIQDYDLSIG 300

DB 241 QRELENDLSGVTLDFTVYTLMDMCSFDTISTSTVDKRLSPFCLFTHDEMIHQDYLQSLK 300
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DB 301 KYGXYGAGNPLGPAQGYEVNELIARLTHSPVDHTSTNHTLDSNPATPLNATLYADS 360
QY 361 HDNTMVSIFPALGLXNTRKPLSTTSVSEIEPDGYAASWTPVPAARAYVMQCEAEKEP 420
DB 361 HDNGLISILFALGLYNTKPLSTTVENITQDGFSSAMTWVPASRLYVEMQCOQAQEP 420

QY 421 LVRVLVNDRVVPLHGCVDKLGRCRDPVEGLSFARSGGMWEECPA 467
DB 421 LVRVLVNDRVVPLHGCVDKLGRCRDPVEGLSFARSGGMWEECPA 467

RESULT 6
US-08-609-426A-8
Sequence 8, Application US/08609426A
Patent No. 5830733
GENERAL INFORMATION:
APPLICANT: Nevalainen, Helena K.M.
APPLICANT: Paloheimo, Maria T.
APPLICANT: Miettinen-Oinonen, Arja S.K.
APPLICANT: Torkkeli, Tuula K.
APPLICANT: Cantrell, Michael
APPLICANT: Piddington, Christopher S.
APPLICANT: Rambosek, John A.
APPLICANT: Turunen, Maria K.
APPLICANT: Fagerstr m, Richard B.
APPLICANT: Houston, Christine S.
TITLE OF INVENTION: Production of Phytase Degrading Enzymes
NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox
STREET: 1100 New York Avenue, Suite 600
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/609,426A
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/923,724
FILING DATE: 31-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/496,155
FILING DATE: 19-MAR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/044,077
FILING DATE: 29-APR-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: UK 8610600
FILING DATE: 30-APR-1986
ATTORNEY/AGENT INFORMATION:
NAME: Reed, Grant E.
REGISTRATION NUMBER: P-41,264
REFERENCE/DOCKET NUMBER: 1050.0080001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid

TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-609-426A-8

Query Match 75.5%; Score 1866; DB 2; Length 467;
Best Local Similarity 74.5%; Pred. No. 2.3e-188;
Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;

```

QY 1 MGVFVLLSIALFLFGSTGALGPPGNHSCTVDGQYQCPPEISHLMGQYSPFSLADE 60
DB 1 MGVSAVLLPLYLAVTSGSLAVPASRNSCTVDGQYQCFSESHLMGQYAPFSLANE 60
QY 61 SAISPDVPGKCVTFVQVLSRHGARYPTSSKSKYSALIEAIOKATAFKGKAFKLYN 120
DB 61 SAISPDVPGKCVTFVQVLSRHGARYPTSSKSKYSALIEAIOKATAFKGKAFKLYN 120
QY 121 YTLGADDLTPFEGEOMVNSGKIFRYRALKARKIYFVRASGSDRVIASAEKTEGQSA 180
DB 121 YSLGADDLTPFEGEOLVNSGKIFRYRALKARKIYFVRASGSDRVIASAEKTEGQST 180
QY 181 KLADPGANPHOASPIYINVIIEGAGYNNLTLDHGLCTAFEESELGDDVEANFTAFAPDIR 240
DB 181 KLADPGANPHOASPIYINVIIEGAGYNNLTLDHGLCTAFEESELGDDVEANFTAFAPDIR 240
QY 241 ARLEAHLPGVNLTDEDVYNLMDKCFPTVARTSDATOLSPFCDLFTHDEWIQYDYLQSLG 300
DB 241 QLENDLSGVTLTDEYVYLLMDKCFPTVARTSDATOLSPFCDLFTHDEWIQYDYLQSLK 300
QY 301 KYGAGNPLGPGAGVFNELIARLHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
DB 301 KYGAGNPLGPGAGVFNELIARLHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
QY 361 HDNMTVSIFPALGLYNGKPLSTTSVSEIETDGYAASMTVPFAARAYVEMOCEAKEP 420
DB 361 HDNMTVSIFPALGLYNGKPLSTTSVSEIETDGYAASMTVPFAARAYVEMOCEAKEP 420
QY 421 LVRLVNDRVVPLHGCYVDKLRCKRDDEVEGLSFARSGGDMWECFA 467
DB 421 LVRLVNDRVVPLHGCYVDKLRCKRDDEVEGLSFARSGGDMWECFA 467

```

RESULT 7
US-08-374-652C-2
Sequence 32, Application US/08374652C
Patent No. 5834286
GENERAL INFORMATION:
APPLICANT: NEVALAINEN, HELENA K.M.
APPLICANT: PALOHEIMO, MARJA T.
APPLICANT: FAGERSTROM, RICHARD B.
APPLICANT: MIETTINEN-OINONEN, ARJA S.
APPLICANT: TURUNEN, MARIA K.
APPLICANT: RAMBOSEK, JOHN A.
APPLICANT: PIDDINGTON, CHRISTOPHER S.
APPLICANT: HOOSTON, CHRISTINE S.
TITLE OF INVENTION: RECOMBINANT CELLS, DNA CONSTRUCTS,
TITLE OF INVENTION: VECTORS AND METHODS FOR EXPRESSING PHYTATE DEGRADING
NUMBER OF SEQUENCES: 94
CORRESPONDENCE ADDRESS:
ADDRESSEE: STERN, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 NEW YORK AVENUE, SUITE 600
CITY: WASHINGTON
STATE: DC
COUNTRY: USA
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/374,652C
FILING DATE: 24-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/07058
FILING DATE: 27-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/925,401
FILING DATE: 31-JUL-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: REED, GRANT E.
REGISTRATION NUMBER: 41,264
REFERENCE/DOCKET NUMBER: 1050.071001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEFAX: 202-371-2540
INFORMATION FOR SEQ. ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: not relevant
MOLECULE TYPE: protein
US-08-374-652C-2

Query Match 75.5%; Score 1866; DB 2; Length 467;
Best Local Similarity 74.5%; Pred. No. 2.3e-188;
Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;

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QY 1 MGVFVLLSIALFLFGSTGALGPPGNHSCTVDGQYQCPPEISHLMGQYSPFSLADE 60
DB 1 MGVSAVLLPLYLAVTSGSLAVPASRNSCTVDGQYQCFSESHLMGQYAPFSLANE 60
QY 61 SAISPDVPGKCVTFVQVLSRHGARYPTSSKSKYSALIEAIOKATAFKGKAFKLYN 120
DB 61 SAISPDVPGKCVTFVQVLSRHGARYPTSSKSKYSALIEAIOKATAFKGKAFKLYN 120
QY 121 YTLGADDLTPFEGEOMVNSGKIFRYRALKARKIYFVRASGSDRVIASAEKTEGQSA 180
DB 121 YSLGADDLTPFEGEOLVNSGKIFRYRALKARKIYFVRASGSDRVIASAEKTEGQST 180
QY 181 KLADPGANPHOASPIYINVIIEGAGYNNLTLDHGLCTAFEESELGDDVEANFTAFAPDIR 240
DB 181 KLADPGANPHOASPIYINVIIEGAGYNNLTLDHGLCTAFEESELGDDVEANFTAFAPDIR 240
QY 241 ARLEAHLPGVNLTDEDVYNLMDKCFPTVARTSDATOLSPFCDLFTHDEWIQYDYLQSLG 300
DB 241 QLENDLSGVTLTDEYVYLLMDKCFPTVARTSDATOLSPFCDLFTHDEWIQYDYLQSLK 300
QY 301 KYGAGNPLGPGAGVFNELIARLHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
DB 301 KYGAGNPLGPGAGVFNELIARLHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
QY 361 HDNMTVSIFPALGLYNGKPLSTTSVSEIETDGYAASMTVPFAARAYVEMOCEAKEP 420
DB 361 HDNMTVSIFPALGLYNGKPLSTTSVSEIETDGYAASMTVPFAARAYVEMOCEAKEP 420
QY 421 LVRLVNDRVVPLHGCYVDKLRCKRDDEVEGLSFARSGGDMWECFA 467
DB 421 LVRLVNDRVVPLHGCYVDKLRCKRDDEVEGLSFARSGGDMWECFA 467

```

RESULT 8
US-08-151-574-32
Sequence 32, Application US/08151574
Patent No. 5436156
GENERAL INFORMATION:
APPLICANT: Robert F.M. Van Gorcom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Paridon

APPLICANT: Anemarie E. Veenstra
 APPLICANT: Rudolf G.M. Luttich
 APPLICANT: Gerardus Selden
 TITLE OF INVENTION: Cloning and Expression of Microbial
 TITLE OF INVENTION: Phytase
 NUMBER OF SEQUENCES: 52
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Morrison & Foerster
 STREET: 545 Middlefield Road, Suite 200
 CITY: Menlo Park
 STATE: California
 COUNTRY: USA
 ZIP: 94025-3471
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 SOFTWARE:
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/151,574
 FILING DATE:
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/688,578
 FILING DATE: 24-MAY-1991
 ATTORNEY/AGENT INFORMATION:
 NAME: Murashige, Kate H.
 REGISTRATION NUMBER: 29,959
 REFERENCE/DOCKET NUMBER: 24615-20026.00
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 415-327-7250
 INFORMATION FOR SEQ ID NO: 32:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 467 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-151-574-32

Query Match 75.4%; Score 1862; DB 1; Length 467;
 Best Local Similarity 74.5%; Pred. No. 6,1e-188;
 Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;
 QY 1 MGCVFVLLSIATLFGSTGFGALGPRGNHSCDVTGQICPEPISHLMGQISPFSLADE 60
 DB 1 MGVSALLPLYLISGVTSGLAVPASRNQSCDVTGQICPEPISHLMGQYAPFSLANE 60
 QY 61 SAISPDVPGKGRVTFVQVLSRHGARYPTSSKSKYSALIEAIONKATAFKAFLKTYN 120
 DB 61 SVISPEVPGKGRVTFVQVLSRHGARYPTSSKSKYSALIEAIONKATFDGKATFLKTYN 120
 QY 121 YTLGADLLTPFGEQMVNSGKIFRRYKALARKIVPVYRAGSDRYVIASEKFTGFSQSA 180
 DB 121 YSLGADLLTPFGEQELVNSGKIFRRYKALARKIVPVYRAGSDRYVIASEKFTGFSQSA 180
 QY 181 KLDAPGAPHQASPVYINVTIPEGAGYNNLTDHGLCTAFEESELGDVEANFTAVFAPPIR 240
 DB 181 KLDAPGAPHQASPVYINVTIPEGAGYNNLTDHGLCTAFEESELGDVEANFTAVFAPPIR 240
 QY 241 ARLEAHLPGVNLTDDEVVNLMDMCPDVTVAARTSDATQLSPPCDLFTHDEMIQYDYLQSLG 300
 DB 241 QRLBNLSGVTLLDTETTYLMDMCSFDJTISTSTVDTKLSPFCDLFTHDEMIQYDYLQSLG 300
 QY 301 KYVYGAGNPLGPAQGVYFNELIARLTHSPVODHTSTNHTLDSNATPPLNATLYADRS 360
 DB 301 KYVYGAGNPLGPAQGVYFNELIARLTHSPVODHTSTNHTLDSNATPPLNATLYADRS 360
 QY 361 HDNTMVSIFPALGTYNKTSTSVESIEETDGYASWTPVPAARYVEMOCEAEKEP 420
 DB 361 HDNIIISILPALGTYNKTSTSVESIEETDGYASWTPVPAARYVEMOCEAEKEP 420

QY 421 LVRLVNDVRVPLHGGVDKLGCRKRDFFVEGLISFARSGGWMECEFA 467
 DB 421 LVRLVNDVRVPLHGGVDKLGCRKRDFFVEGLISFARSGGWMECEFA 467
 RESULT 9
 US-08-146-424-20
 Sequence 20, Application US/08146424
 Patent No. 5593963
 GENERAL INFORMATION:
 APPLICANT: VAN OIJEN, ALBERT J. J.
 APPLICANT: RIETVELD, KRIJN
 APPLICANT: HOEKEMA, ANDREAS
 APPLICANT: BEN, JAN
 APPLICANT: STUMONS, PETER C.
 APPLICANT: VERMOERD, TEUNIS C.
 TITLE OF INVENTION: THE EXPRESSION OF PHYTASE IN PLANTS
 NUMBER OF SEQUENCES: 31
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: MORRISON & FOERSTER
 STREET: 755 Page Mill Road
 CITY: Palo Alto
 STATE: California
 COUNTRY: USA
 ZIP: 94304-1018
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/146,424
 FILING DATE: 02-NOV-1993
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: KENNEDY, BILL
 REGISTRATION NUMBER: 33,407
 REFERENCE/DOCKET NUMBER: 44615-20011.24
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 813-5600
 TELEFAX: (415) 494-0792
 TELEX: 706141
 INFORMATION FOR SEQ ID NO: 20:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 467 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-146-424-20
 Query Match 75.4%; Score 1862; DB 1; Length 467;
 Best Local Similarity 74.5%; Pred. No. 6,1e-188;
 Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;
 QY 1 MGCVFVLLSIATLFGSTGFGALGPRGNHSCDVTGQICPEPISHLMGQISPFSLADE 60
 DB 1 MGVSALLPLYLISGVTSGLAVPASRNQSCDVTGQICPEPISHLMGQYAPFSLANE 60
 QY 61 SAISPDVPGKGRVTFVQVLSRHGARYPTSSKSKYSALIEAIONKATAFKAFLKTYN 120
 DB 61 SVISPEVPGKGRVTFVQVLSRHGARYPTSSKSKYSALIEAIONKATFDGKATFLKTYN 120
 QY 121 YTLGADLLTPFGEQMVNSGKIFRRYKALARKIVPVYRAGSDRYVIASEKFTGFSQSA 180
 DB 121 YSLGADLLTPFGEQELVNSGKIFRRYKALARKIVPVYRAGSDRYVIASEKFTGFSQSA 180
 QY 181 KLDAPGAPHQASPVYINVTIPEGAGYNNLTDHGLCTAFEESELGDVEANFTAVFAPPIR 240
 DB 181 KLDAPGAPHQASPVYINVTIPEGAGYNNLTDHGLCTAFEESELGDVEANFTAVFAPPIR 240
 QY 241 ARLEAHLPGVNLTDDEVVNLMDMCPDVTVAARTSDATQLSPPCDLFTHDEMIQYDYLQSLG 300
 DB 241 QRLBNLSGVTLLDTETTYLMDMCSFDJTISTSTVDTKLSPFCDLFTHDEMIQYDYLQSLG 300

Db 241 ORLENDLSGVTLLDTEVYTLMDMCSFDITSTYDTKLSPCDLFTHEWIMNYDLOS LK 300
Qy 301 KYTGAGANPLGPAGVGFVNEILARLTHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
Db 301 KYTGAGANPLGPAGVGFVNEILARLTHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
Qy 361 HDNMTVSIFPALGNGKPLSTSVESIEETDGYAASWYVFPARAVEMOCEAKEP 420
Db 361 HDNMTVSIFPALGNGKPLSTSVESIEETDGYAASWYVFPARAVEMOCEAKEP 420
Qy 421 LVRVLVNDRVVPLHGCYVDKLGRCRDEFEGLSFARSGGNWCECA 467
Db 421 LVRVLVNDRVVPLHGCYVDKLGRCRDEFEGLSFARSGGNWCECA 467

RESULT 10
US-08-693-709-2
Sequence 2, Application US/08693709
Patent No. 5770413
GENERAL INFORMATION:
APPLICANT: VAN COIJEN, ALBERT J.J.
APPLICANT: RIETVELD, KRION
APPLICANT: HOEKEMA, ANDREAS
APPLICANT: PEN, JAN
APPLICANT: SIMONS, PETER C.
APPLICANT: VERMOERD, TUDNIS C.
TITLE OF INVENTION: THE EXPRESSION OF PHYTASE
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 PAGE MILL ROAD
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/693,709
FILING DATE: 07-AUG-1996
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/146,424
FILING DATE: 02-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20011.10
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-813-5600
TELEFAX: 415-494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
FRAGMENT TYPE: internal
FEATURE:
NAME/KEY: Signal Sequence
LOCATION: 1...23
OTHER INFORMATION:
US-08-693-709-2

Query Match 75.4%; Score 1862; DB 1; Length 467;
Best Local Similarity 74.5%; Pred. No. 6,1e-186;

Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;
Qy 1 MGFFVLLSITATLFGSTGALGPRKNSHSCPTVDGGVOCFPEISHLMGQVSFFSLADE 60
Db 1 MGSAVALLPYLILSGVTLGSLAVPASRNOSCDTVGQYCCFSESHLMGQYAPFESLANE 60
Qy 61 SAISPDVPGKRYTEFQVLSRRGARYPTSSKSKYSALIEALOKNATFPGKYATLKYN 120
Db 61 SVISPEVPAGCARTFQVLSRRGARYPTSSKSKYSALIEALOKNATFPGKYATLKYN 120
Qy 121 YTLGADDLTPFEGQVQNSGKIFRYRYLARKIYFVPAASGSDRVISAETIEGFOA 180
Db 121 YSLGADDLTPFEGQVQNSGKIFRYRYLARKIYFVPAASGSDRVISAETIEGFOA 180
Qy 181 KLADPGANPHOASPVYINVIIPGAGYNNLBDGLCTAEBSGLGDVDANFTAVFAPIR 240
Db 181 KLADPGANPHOASPVYINVIIPGAGYNNLBDGLCTAEBSGLGDVDANFTAVFAPIR 240
Qy 241 ARLEAHLPGVNLDEVDVNLMDMCPEDVARTSDATOLSPFCDLFTHEWIMYOYDLSLG 300
Db 241 ORLENDLSGVTLLDTEVYTLMDMCSFDITSTYDTKLSPCDLFTHEWIMNYDLOS LK 300
Qy 301 KYTGAGANPLGPAGVGFVNEILARLTHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
Db 301 KYTGAGANPLGPAGVGFVNEILARLTHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
Qy 361 HDNMTVSIFPALGNGKPLSTSVESIEETDGYAASWYVFPARAVEMOCEAKEP 420
Db 361 HDNMTVSIFPALGNGKPLSTSVESIEETDGYAASWYVFPARAVEMOCEAKEP 420
Qy 421 LVRVLVNDRVVPLHGCYVDKLGRCRDEFEGLSFARSGGNWCECA 467
Db 421 LVRVLVNDRVVPLHGCYVDKLGRCRDEFEGLSFARSGGNWCECA 467

RESULT 11
US-08-419-448-32
Sequence 32, Application US/08419448
Patent No. 5863533
GENERAL INFORMATION:
APPLICANT: Robert F.M. Van Gorcom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Paridon
APPLICANT: Anemarie E. Veenstra
APPLICANT: Rudolf G.M. Luttin
TITLE OF INVENTION: Cloning and Expression of Microbial
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Morrison & Foerster
STREET: 2000 Pennsylvania Ave. N.W., Suite 5500
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/419,448
FILING DATE: 10-APR-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026.10
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-887-1500
INFORMATION FOR SEQ ID NO: 32:

SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-419-448-32

Query Match 75.4%; Score 1862; DB 2; Length 467;
Best Local Similarity 74.5%; Pred. No. 6.1e-188;
Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;

QY 1 MGVFVLLSIATLFGSTGTALGPRGNSHSCDTVDGYGQCFPEISHLMOGYSPFSLADE 60
DB 1 MGVSAYLLPLYLSSVTSGLAVPASRNOSCDTVDGYGQCFSESHLMGOYAPFSLANE 60
QY 61 SAISPDVPGKCRVTFVQVLSRHGARYPTSSKSKYSALIEAIQKNATAFKGYAFKTYN 120
DB 61 SVISPEVPACGRVTFVQVLSRHGARYPTDSKGGKYSALIEIQNNATTFDGKAFKTYN 120
QY 121 YTLGADDLTPREGQOMVNSGIFKRYRKALARKIVPFRASGSDRYIASAEKFTIEGFOSA 180
DB 121 YSLGADDLTPREGQELVNSGIFKRYRKALARKIVPFRASGSDRYIASAEKFTIEGFOSA 180
QY 181 KLADPGANPHQASPVINVIIEGAGYNNTLDHGLCTAEESLGDVDEANFTAVFAPPIR 240
DB 181 KLADPGANPHQASPVINVIIEGAGYNNTLDHGLCTAEESLGDVDEANFTAVFAPPIR 240
QY 241 ARLEAHLPGVNLTDDEVNLMDCPEFDVARTSPDQTLSPFCDLFTHEMWIOYDLOSLG 300
DB 241 QRLNDLSGVTLLTDEVTYLMDCSPDITSTVDTKLSFPCDLFTHEMWIYDLOSLK 300
QY 301 KYGYGAGNPLGPAQGVFNELIARLTHSPVDHTSTNHTLDSNPATFPPLNATLYADS 360
DB 301 KYGYGAGNPLGPAQGVFNELIARLTHSPVDHTSTNHTLDSNPATFPPLNATLYADS 360
QY 361 HDNTWVSIFPALGLXNGTKPLSTTSVESIEETDGYAASWTVPFARAYVEMQCAEKEP 420
DB 361 HDNGIISILFALGLXNGTKPLSTTVEITITQTDGFSAMTVPFARSLVEMQCAEKEP 420
QY 421 LVRVLVNDRVVPLHGGCVDKLGRCKRDEVEGLSPFARSGNMECEFA 467
DB 421 LVRVLVNDRVVPLHGGCVDKLGRCKRDEVEGLSPFARSGNMECEFA 467

RESULT 12

US-08-819-825-3
Sequence 3, Application US/08819825
Patent No. 5866118

GENERAL INFORMATION:
APPLICANT: Berka, Randy M.
APPLICANT: Ray, Michael W.
APPLICANT: Klotz, Alan V.
TITLE OF INVENTION: Polypeptides Having Phytase Activity
TITLE OF INVENTION: And Nucleic Acids Encoding Same
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESS: No. 58661180 No. 5866118disk of No. 5866118th America, Inc.
STREET: 405 Lexington Avenue, Suite 6400
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10174-6401

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTED for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/819, 825
FILING DATE: 18-MAR-1997
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:

NAME: lambiris, Elias J.
REGISTRATION NUMBER: 33,728
REFERENCE/DOCKET NUMBER: 4758.200-US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 867 0123
TELEFAX: 212 867 0298
INFORMATION FOR SEQ ID NO: 3:

SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-08-819-825-3

Query Match 75.4%; Score 1862; DB 2; Length 467;
Best Local Similarity 74.5%; Pred. No. 6.1e-188;
Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;

QY 1 MGVFVLLSIATLFGSTGTALGPRGNSHSCDTVDGYGQCFPEISHLMOGYSPFSLADE 60
DB 1 MGVSAYLLPLYLSSVTSGLAVPASRNOSCDTVDGYGQCFSESHLMGOYAPFSLANE 60
QY 61 SAISPDVPGKCRVTFVQVLSRHGARYPTSSKSKYSALIEAIQKNATAFKGYAFKTYN 120
DB 61 SVISPEVPACGRVTFVQVLSRHGARYPTDSKGGKYSALIEIQNNATTFDGKAFKTYN 120
QY 121 YTLGADDLTPREGQOMVNSGIFKRYRKALARKIVPFRASGSDRYIASAEKFTIEGFOSA 180
DB 121 YSLGADDLTPREGQELVNSGIFKRYRKALARKIVPFRASGSDRYIASAEKFTIEGFOSA 180
QY 181 KLADPGANPHQASPVINVIIEGAGYNNTLDHGLCTAEESLGDVDEANFTAVFAPPIR 240
DB 181 KLADPGANPHQASPVINVIIEGAGYNNTLDHGLCTAEESLGDVDEANFTAVFAPPIR 240
QY 241 ARLEAHLPGVNLTDDEVNLMDCPEFDVARTSPDQTLSPFCDLFTHEMWIOYDLOSLG 300
DB 241 QRLNDLSGVTLLTDEVTYLMDCSPDITSTVDTKLSFPCDLFTHEMWIYDLOSLK 300
QY 301 KYGYGAGNPLGPAQGVFNELIARLTHSPVDHTSTNHTLDSNPATFPPLNATLYADS 360
DB 301 KYGYGAGNPLGPAQGVFNELIARLTHSPVDHTSTNHTLDSNPATFPPLNATLYADS 360
QY 361 HDNTWVSIFPALGLXNGTKPLSTTSVESIEETDGYAASWTVPFARAYVEMQCAEKEP 420
DB 361 HDNGIISILFALGLXNGTKPLSTTVEITITQTDGFSAMTVPFARSLVEMQCAEKEP 420
QY 421 LVRVLVNDRVVPLHGGCVDKLGRCKRDEVEGLSPFARSGNMECEFA 467
DB 421 LVRVLVNDRVVPLHGGCVDKLGRCKRDEVEGLSPFARSGNMECEFA 467

RESULT 13

US-09-163-642-3
Sequence 3, Application US/09163642
Patent No. 6221644

GENERAL INFORMATION:
APPLICANT: Berka, Randy M.
APPLICANT: Ray, Michael W.
APPLICANT: Klotz, Alan V.
TITLE OF INVENTION: Polypeptides Having Phytase Activity
TITLE OF INVENTION: And Nucleic Acids Encoding Same
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESS: No. 62216440 No. 6221644disk of No. 6221644th America, Inc.
STREET: 405 Lexington Avenue, Suite 6400
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10174-6401

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible

OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/163,642
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/819,825
FILING DATE: 18-MAR-1997
ATTORNEY/AGENT INFORMATION:
NAME: Lamberts, Elias J.
REGISTRATION NUMBER: 33,728
REFERENCE/DOCKET NUMBER: 4758,200-US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 867 0123
TELEFAX: 212 867 0298
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-09-163-642-3

Query Match 75.4%; Score 1862; DB 4; Length 467;
Best Local Similarity 74.5%; Pred. No. 6,1e-188;
Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;

QY 1 MGAVVLLSTATLFGSTGATLPGRNHSCDTPVDGYOCFPEISHLMGOYSPFSLADE 60
DB 1 MGSAVALLPLYLISGTVSLGAVPASRNQSCDTPVDGYOCFSETSHLMGOYAFPSLANE 60
QY 61 SATSPVPGKCRVTFVOVLSRHGARYPTSSKSKYSALIEAIQKNATFAKGYAFLEKTYN 120
DB 61 SATSPVPGKCRVTFVOVLSRHGARYPTSSKSKYSALIEAIQKNATFAKGYAFLEKTYN 120
QY 121 YTLGADDLTPFGEOQVWNSGIRFYRRYKALARKIVFVARSQSDVIVASAEKFIGFQSA 180
DB 121 YSLGADDLTPFGEOQLVNSGIRFYQRESLTNIVPFISSSSRVIVASGKKEFIGFQST 180
QY 181 KLADPGANHQASPVINVIIPGAGYNNTLDHGLCTAFEESELGDVNEAFVAPAPR 240
DB 181 KLADPGANHQASPVINVIIPGAGYNNTLDHGLCTAFEESELGDVNEAFVAPAPR 240
QY 241 ARLEAHLPGVNLTPEDVYVNLMDCEPDVYARTSDATQLSPFCDLTHHEMIQYDYLQSLG 300
DB 241 QRLNDLSGVTLTDTEVYIYIMDMCSFTITSTVDTKLSPCDLETHHEMINYDYLQSLK 300
QY 301 KYGGAGNPLGPAQGVGVNELIARLTHSPVODHTSTNHTLDSNPATFPINATLYADF 360
DB 301 KYGGAGNPLGPAQGVGVNELIARLTHSPVODHTSTNHTLDSNPATFPINATLYADF 360
QY 361 HDNTWVSIFPALGLYNGKPLSTSVESIEETDGYAASWVFPFAARAVEMMOCEAEKEP 420
DB 361 HDNGIISILFALGLYNGKPLSTTVENITQTDGFSAMVTFPFSRLYVEMMOCAQEDP 420
QY 421 LVRVLVNDRVVPLHGCQVYDLGRCKRDPFVEGLSFARSQGWMECEFA 467
DB 421 LVRVLVNDRVVPLHGCQVYDLGRCKRDPFVEGLSFARSQGWMECEFA 467

RESULT 14
US-09-233-510-32
Sequence 32, Application US/09233510
Patent No. 6350602
GENERAL INFORMATION:
APPLICANT: Robert F.M. Van Gorcom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Paridon
APPLICANT: Annemarie E. Veenstra
APPLICANT: Rudolf G.M. Luttin
APPLICANT: Gerardus Sellen

TITLE OF INVENTION: Cloning and Expression of Microbial
TITLE OF INVENTION: Phytase
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Morrison & Foerster
STREET: 545 Middlefield Road, Suite 200
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025-3471
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/233,510
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/688,578
FILING DATE: 24-MAY-1991
ATTORNEY/AGENT INFORMATION:
NAME: Mureshige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026.00
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-327-7250
TELEFAX: 415-327-2951
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-233-510-32

Query Match 75.4%; Score 1862; DB 4; Length 467;
Best Local Similarity 74.5%; Pred. No. 6,1e-188;
Matches 348; Conservative 44; Mismatches 75; Indels 0; Gaps 0;

QY 1 MGAVVLLSTATLFGSTGATLPGRNHSCDTPVDGYOCFPEISHLMGOYSPFSLADE 60
DB 1 MGSAVALLPLYLISGTVSLGAVPASRNQSCDTPVDGYOCFSETSHLMGOYAFPSLANE 60
QY 61 SATSPVPGKCRVTFVOVLSRHGARYPTSSKSKYSALIEAIQKNATFAKGYAFLEKTYN 120
DB 61 SATSPVPGKCRVTFVOVLSRHGARYPTSSKSKYSALIEAIQKNATFAKGYAFLEKTYN 120
QY 121 YTLGADDLTPFGEOQVWNSGIRFYRRYKALARKIVFVARSQSDVIVASAEKFIGFQSA 180
DB 121 YSLGADDLTPFGEOQLVNSGIRFYQRESLTNIVPFISSSSRVIVASGKKEFIGFQST 180
QY 181 KLADPGANHQASPVINVIIPGAGYNNTLDHGLCTAFEESELGDVNEAFVAPAPR 240
DB 181 KLADPGANHQASPVINVIIPGAGYNNTLDHGLCTAFEESELGDVNEAFVAPAPR 240
QY 241 ARLEAHLPGVNLTPEDVYVNLMDCEPDVYARTSDATQLSPFCDLTHHEMIQYDYLQSLG 300
DB 241 QRLNDLSGVTLTDTEVYIYIMDMCSFTITSTVDTKLSPCDLETHHEMINYDYLQSLK 300
QY 301 KYGGAGNPLGPAQGVGVNELIARLTHSPVODHTSTNHTLDSNPATFPINATLYADF 360
DB 301 KYGGAGNPLGPAQGVGVNELIARLTHSPVODHTSTNHTLDSNPATFPINATLYADF 360
QY 361 HDNTWVSIFPALGLYNGKPLSTSVESIEETDGYAASWVFPFAARAVEMMOCEAEKEP 420
DB 361 HDNGIISILFALGLYNGKPLSTTVENITQTDGFSAMVTFPFSRLYVEMMOCAQEDP 420
QY 421 LVRVLVNDRVVPLHGCQVYDLGRCKRDPFVEGLSFARSQGWMECEFA 467
DB 421 LVRVLVNDRVVPLHGCQVYDLGRCKRDPFVEGLSFARSQGWMECEFA 467

DB 421 LVRVLYNDRVVPLHGCPCVDALGRCRDSFVRGLSFARSGGDMACFA 467

RESULT 15
US-09-155-855-3

; Sequence 3, Application US/09155855
; Patent No. 6139902

; GENERAL INFORMATION:

; APPLICANT: KONDO, Hidemasa

; APPLICANT: ANAZAWA, Hideharu

; APPLICANT: KANEKO, Syunichi

; APPLICANT: NAGASHIMA, Tadashi

; APPLICANT: TANGE, Tatsuya

; TITLE OF INVENTION: NOVEL PHYTASE AND GENE ENCODING SAID PHYTASE

; FILE REFERENCE: 81356/124

; CURRENT APPLICATION NUMBER: US/09/155,855

; CURRENT FILING DATE: 1998-10-05

; EARLIER APPLICATION NUMBER: WO PCT/JP97/01175

; EARLIER FILING DATE: 1997-04-04

; EARLIER APPLICATION NUMBER: JP 084314

; NUMBER OF SEQ ID NOS: 7

; SOFTWARE: Patentin Ver. 2.0

; SEQ ID NO 3

; LENGTH: 467

; TYPE: PRT

; ORGANISM: Aspergillus niger

US-09-155-855-3

Query Match 75.1%; Score 1855; DB 4; Length 467;

Best local similarity 73.4%; Pred. No. 3.3e-187;

Matches 343; Conservative 51; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGFWVLLSTATLFGSTSGALGPRGNSSHCDTVGQYOCFPEISHLNGQSPFFSLADE 60
DB 1 MGVSAYLLPLYLSTGVLGAVPARNOSTCDTVGQYOCFSESHLNGQYAPFFSLANK 60
QY 61 SAISPDVPGKCRVTFVQVLSRHGARYPTSSKSKYSALIEAIOKNATAFKGYAFKTYN 120
DB 61 SAISPDVPGKCRVTFVQVLSRHGARYPTSSKSKYSALIEAIOKNATAFKGYAFKTYN 120
QY 121 YTLGADLTTPFGQOMWNSIKFRYKALARKIVEFVARSGSDRYIASAEKFIQFOSA 180
DB 121 YTLGADLTTPFGQOMWNSIKFRYKALARKIVEFVARSGSDRYIASAEKFIQFOSA 180
QY 181 KLADEGANPHQASPVINVIIPGAGYNTLDHGLCTAFEESELGDDVEANFTAVFAPPIR 240
DB 181 KLADEGANPHQASPVINVIIPGAGYNTLDHGLCTAFEESELGDDVEANFTAVFAPPIR 240
QY 241 ARLEAHLPGVNLDEDEVYNIMDMCPDPTVARTSDATQLSFCDLFTHDEMIOYDLOSLG 300
DB 241 ARLEAHLPGVNLDEDEVYNIMDMCPDPTVARTSDATQLSFCDLFTHDEMIOYDLOSLG 300
QY 301 KYGCGAGNPLGPGAGVGFVNEIARLTHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
DB 301 KYGCGAGNPLGPGAGVGFVNEIARLTHSPVODHTSTNHTLDSNPATFPLNATLYADFS 360
QY 361 HDNTWVSIFPGLGYNKTKPLSTSVESIEETDGYAASWTPPAPARAIVEMQCEAEKEP 420
DB 361 HDNTWVSIFPGLGYNKTKPLSTSVESIEETDGYAASWTPPAPARAIVEMQCEAEKEP 420
QY 421 LVRVLYNDRVVPLHGCPCVDALGRCRDSFVRGLSFARSGGDMACFA 467
DB 421 LVRVLYNDRVVPLHGCPCVDALGRCRDSFVRGLSFARSGGDMACFA 467

Search completed: July 3, 2002, 09:33:12
Job time: 151 sec

100

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Db      301 LRRSPQDHTSTNNHILDSNPATPEFLNNTLYLADPSHDNSMISLFPAALGLYNGAPLSTTSV   360
QY      351 EST-ETDGYASMTVPFARAYVEMMOCEAGGGGGEKEEPLRYLVNDRVYPPLHGCV D    409
        ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      361 ESEETEDGSASMTVPFCARAYVEMMOCA-----EKEPLRYLVNDRVYPPLHGCAVD    413
QY      410 KLGRCCKLDPEVEGLSFARSGGNMAECFA 437
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      414 KLGRCKRDPEVEGLSFPANSGGNMAECFA 441

RESULT          2
US-09-121-425-2
: Sequence 2, Application US/09121425
: Patent No. 6153418
: GENERAL INFORMATION:
: APPLICANT: Lehmann, Martin
: TITLE OF INVENTION: Consensus phytases
: FILE REFERENCE: consensus phytases 13239
: CURRENT APPLICATION NUMBER: US/09/121.425
: EARLIER FILING DATE: 1998-07-23
: EARLIER APPLICATION NUMBER: EPO 97112688.3
: EARLIER FILING DATE: 1997-07-24
: NUMBER OF SEQ ID NOS: 20
: SOFTWARE: PatentIn Ver. 2.0
: SEQ ID NO 2
: LENGTH: 467
: TYPE: PRT
: ORGANISM: Artificial Sequence
FEATURE:
: OTHER INFORMATION: Description of Artificial Sequence:consensus
US-09-121-425-2
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Query Match	81.9%;	Score 1902;	DB 4;	Length 467;
Best local Similarity	81.8%;	Pred. No. 3.8e-195;		
Matches 382;	Conservative 19;	Mismatches 19;	Indels 56;	Gaps 11.

0Y	1	NHSCDTPAD-GYOC-PBETLSHMGYSIPFESLADSSALSPOVPAGCRITFQVULSRGAKN	26
0Y	27	NHSCDTPADGGYOCPEPISHLMGQSPFESLEDESSALSPPVDDCRVTFFQVULSRGARG	86
0Y	59	PTSSSKSKYSALIENTIOMNATFKCKYAFNLKTYNTLADDLTTPGEGOMQNSGKIFRYR	118
0Y	87	PTSSSKSKAYS-----YYNTLGLADDLTTPGEGOMQNSGKIFRYR	127
0Y	119	KALARNIYFVRASGSDRIYASAEKTEIGFOSAKIADPA--HOASPVIN-----	165
0Y	128	KALARIYFIRASGSDRIYASAEKTEIGFOSAKIADPGSGPHQASPVIDLITAEIOMNAT	187
0Y	166	-----VIIPEGSGYNNLTLDHGLCTATPBDSTLGDAMANTYANFAPPIRARLEA-L	214
0Y	188	AFKGKAYAFKVIIPESGGINNTLIDGTCTAEDSELSGDVAFNATFAPIRARLEADL	247
0Y	215	PGYNLTDEBYVNLMMCPEDTVAHRSMDATOLSPCEDLTADDEM-QYDILOSL-KYYGYGA	272
0Y	248	PGTTLTDEBYVNLMMCPETIYAKRSDATELSFCFALTTHDEMQYDILOSLGKYYGYGA	307
0Y	273	GNFLGPAQGVGF-NELIARLTRSPYODHTSTNHTLDSNPATFPLNATLYADESHDNTVY	331
0Y	308	GNFLGPAQGVGFANELIARLTRSPYODHTSTNHTLDSNPATFPLNATLYADESHDNTVY	367
0Y	332	IFPALGLYNGTKPLSTTSVEST-ETDGYAASMTYVFAARAYEMOCAGGSGEGEKEP	396
0Y	368	IFPALGLYNGTAPLSTTSVESTIETDGYASASMTYVFFGARAYEMOCCA-----EKEP	420
0Y	391	LVEVIVNDRVYPLHGGGVYKLGRCRKLDDVEELISFARSGGMAECCFA	437
0Y	421	LVRVLVNDRVYPLHGGGVYKLGRCRKLDDVEELISFARSGGMAECCFA	467

RESULT 3

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US-08-868-435-33
? Sequence 33, Application US/08868435
? Patent No. 6291221
?
? GENERAL INFORMATION:
? APPLICANT: Van Loon, Adolphus
? APPLICANT: Mitchell, David
? TITLE OF INVENTION: POLYPEPTIDES WITH PHATASE ACTIVITY
? NUMBER OF SEQUENCES: 35
? CORRESPONDENCE ADDRESSES:
? ADDRESSEE: Hoffmann-La Roche Inc.
? STREET: 340 Kingsland Street
? CITY: Nutley
? STATE: New Jersey
? COUNTRY: United States of America
? ZIP: 07110
?
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Floppy disk
? COMPUTER: IBM PC compatible
? OPERATING SYSTEM: PC-DOS/MS-DOS
? SOFTWARE: PatentL Release #1.0, Version #1.25
?
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: US/08/868,435
? FILING DATE:
? CLASSIFICATION:
? PRIOR APPLICATION DATA:
? APPLICATION NUMBER: 08/744,231
? FILING DATE:
? ATTORNEY/AGENT INFORMATION:
? NAME: Kass, Alan P
? REGISTRATION NUMBER: 32142
? REFERENCE/DOCKET NUMBER: Case Docket 9339
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: (201) 235-4205
? TELEFAX: (201) 235-2363
?
? INFORMATION FOR SEQ ID NO: 33:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 465 amino acids
? TYPE: amino acid
? TOPOLOGY: linear
? MOLECULE TYPE: protein
?
? FEATURE:
? NAME/KEY: misc_feature
? LOCATION: 104
? OTHER INFORMATION: /note="potential N-glycosylation site"
?
? FEATURE:
? NAME/KEY: misc_feature
? LOCATION: 119
? OTHER INFORMATION: /note="potential N-glycosylation site"
?
? FEATURE:
? NAME/KEY: misc_feature
? LOCATION: 205
? OTHER INFORMATION: /note="potential N-glycosylation site"
?
? FEATURE:
? NAME/KEY: misc_feature
? LOCATION: 228
? OTHER INFORMATION: /note="potential N-glycosylation site"
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? FEATURE:
? NAME/KEY: misc_feature
? LOCATION: 337
? OTHER INFORMATION: /note="potential N-glycosylation site"
?
? FEATURE:
? NAME/KEY: misc_feature
? LOCATION: 374
? OTHER INFORMATION: /note="potential N-glycosylation site"
?
? OTHER INFORMATION: /note="potential N-glycosylation site"
US-08-868-435-33

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	75.9%;	Score	1762.5;	DB	:	Length	465;
Query Match							
Best Local Similarity	77.48%;	Pred.	No.	3.4e-180;			
Matches	345;	Conservative			48;	Indels	17; Gaps
							10.;
2 SHSCDWD-GYCC-PKISHLWGCYSPPFLSDESAISDPVPCRGCFVFVLNRHGARP							59
: :							

Db 27 SKSCDITVDLGYQCSPATSHLMGQSPFFSLEDELVSXSKLPKDCRTILVQVLSRHGARYP 86
QY 60 TSSKSKKYYSALEIRIQKNAT-FKGYAFLEKTYNTLGGADLTPEGENOMVNSGKRYRY 118
Db 87 TSSKSKKYYKLVLAIQANATDFGKFAFLKTYNTLGGADLTPEGQOLVNSGKRYRY 146
QY 119 KALARNIVPVRASGSDRVIASAEKFTIEGQSAKLADP-AHQASPVINVIIEGSGYNN 176
Db 147 KALARSVPPIRASGSDRVIASAEKFTIEGQSAKLADPAGATNNAAPAIIVIESETFNN 206
QY 177 TLHGCTAFEDSTLGGDAEANTAFAPIRARLEA-LPGVLTDEEDVNLMDKCPDT 235
Db 207 TLHGCTAFEDSTLGGDAEANTAFAPIRARLEA-LPGVLTDEEDVNLMDKCPDT 266
QY 236 VARTSDATQSLSPCDLFTADEW-QYDYLOSL-KYGYGAGNPLGPAGYGF-NELIARLT 292
Db 267 VARTSDATQSLSPCDLFTADEW-QYDYLOSL-KYGYGAGNPLGPAGYGF-NELIARLT 326
QY 293 HSPVODHTSTNHTLDSNPATFPPLNATLADFSHDNTMVSIFPALGLYNGTKPLSTTSVES 352
Db 327 RSPVODHTSTNHTLDSNPATFPPLNATLADFSHDNTMVSIFPALGLYNGTKPLSTTSVES 386
QY 353 I-ETDGYAASWVVFARAYVEMMOCEAGGGEKEPELVNIVNDRVPLHGGCVKLT 411
Db 387 AKELDGYASWVVFARAYVEMMOCEAGGGEKEPELVNIVNDRVPLHGGCVKLT 439
QY 412 GRCKLDPEVGLSFARSGGNMAECFA 437
Db 440 GRCKLDPEVGLSFARSGGNMAECFA 465

RESULT 4
US-08-744-231-33
; Sequence 33, Application US/08744231
; Patent No. 6358722
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: United States of America
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/744,231
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/424,757
; FILING DATE: 18-APR-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Kass, Alan P
; REGISTRATION NUMBER: 32142
; REFERENCE/DOCKET NUMBER: Case Docket 9339
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-2365
; TELEFAX: (201) 235-2365
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 465 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:

NAME/KEY: misc_feature
LOCATION: 104
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 119
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 205
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 228
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 337
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 374
OTHER INFORMATION: /note="potential N-glycosylation site"
US-08-744-231-33

Query Match 75.9%; Score 1762.5; DB 4; Length 465;
Best Local Similarity 77.4%; Pred. No. 3,4e-180;
Matches 345; Conservative 36; Mismatches 48; Indels 17; Gaps 10;

QY 2 SHSCDITVDLGYQCSPATSHLMGQSPFFSLEDELVSXSKLPKDCRTILVQVLSRHGARYP 59
Db 27 SKSCDITVDLGYQCSPATSHLMGQSPFFSLEDELVSXSKLPKDCRTILVQVLSRHGARYP 86
QY 60 TSSKSKKYYSALEIRIQKNAT-FKGYAFLEKTYNTLGGADLTPEGENOMVNSGKRYRY 118
Db 87 TSSKSKKYYKLVLAIQANATDFGKFAFLKTYNTLGGADLTPEGQOLVNSGKRYRY 146
QY 119 KALARNIVPVRASGSDRVIASAEKFTIEGQSAKLADP-AHQASPVINVIIEGSGYNN 176
Db 147 KALARSVPPIRASGSDRVIASAEKFTIEGQSAKLADPAGATNNAAPAIIVIESETFNN 206
QY 177 TLHGCTAFEDSTLGGDAEANTAFAPIRARLEA-LPGVLTDEEDVNLMDKCPDT 235
Db 207 TLHGCTAFEDSTLGGDAEANTAFAPIRARLEA-LPGVLTDEEDVNLMDKCPDT 266
QY 236 VARTSDATQSLSPCDLFTADEW-QYDYLOSL-KYGYGAGNPLGPAGYGF-NELIARLT 292
Db 267 VARTSDATQSLSPCDLFTADEW-QYDYLOSL-KYGYGAGNPLGPAGYGF-NELIARLT 326
QY 293 HSPVODHTSTNHTLDSNPATFPPLNATLADFSHDNTMVSIFPALGLYNGTKPLSTTSVES 352
Db 327 RSPVODHTSTNHTLDSNPATFPPLNATLADFSHDNTMVSIFPALGLYNGTKPLSTTSVES 386
QY 353 I-ETDGYAASWVVFARAYVEMMOCEAGGGEKEPELVNIVNDRVPLHGGCVKLT 411
Db 387 AKELDGYASWVVFARAYVEMMOCEAGGGEKEPELVNIVNDRVPLHGGCVKLT 439
QY 412 GRCKLDPEVGLSFARSGGNMAECFA 437
Db 440 GRCKLDPEVGLSFARSGGNMAECFA 465

RESULT 5
US-08-868-435-12
; Sequence 12, Application US/08868435
; Patent No. 6291221
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:

QY 410 KLGCRCKLDPEVEGLSPFARSGGNMAECF 436
Db 440 KLGCRCKRDAFVAGLSFPAQAGNMADCF 466

RESULT 7

US-07-923-724-8
Sequence 8, Application US/07923724
Patent No. 5780292

GENERAL INFORMATION:

APPLICANT: Nevalainen, Helena K.M.
APPLICANT: Paloheimo, Marja T.
APPLICANT: Miettinen-Oinonen, Arja S.K.
APPLICANT: Torkkeli, Tuula K.
APPLICANT: Cantrell, Michael
APPLICANT: Piddington, Christopher S.
APPLICANT: Rambosek, John A.
APPLICANT: Turunen, Marja K.
APPLICANT: Fagerstr m, Richard B.
TITLE OF INVENTION: Production of Phytase Degrading Enzymes
TITLE OF INVENTION: In Trichoderma
NUMBER OF SEQUENCES: 66
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox
STREET: 1100 New York Avenue, Suite 600
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20005

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/923,724
FILING DATE: 31-JUL-1992
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/496,155
FILING DATE: 19-MAR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/044,077
FILING DATE: 29-APR-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: UK 8610600
FILING DATE: 30-APR-1986

ATTORNEY/AGENT INFORMATION:

NAME: Cimbal, Michele A.
REGISTRATION NUMBER: 33,851
REFERENCE/DOCKET NUMBER: 1050.0240004
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-07-923-724-8

Query Match 72.7%; Score 1688; DB 1; Length 467;
Best Local Similarity 73.9%; Pred No. 3.3e-172;
Matches 31; Conservative 40; Mismatches 59; Indels 18; Gaps 10;

QY 1 NSHSCDTPV-GTQC-PEISHLWGQYSPFSLADESNISPDPVKGGRVTFVQVLSRHGARY 58
Db 27 NSTCTDTPVGGYQCFSEITSHLWGQYAPFESFLANESNISPDPVAGGRVTFVQVLSRHGARY 86
QY 59 PHSKSKYSALIERIQRN-AIFKKGKYLKTYNTLLGADLTTPGEMQVNSGIKFRYR 117

Db 87 PTESGKRYKYSALIEIQNWTTFDGGKYLKTYNYSLGADLTTPFGQRLVNSGIKFRYR 146
QY 118 YKALARNIVPEFVRASGSDRYASAEKFTBEGFOSAKLADP---AHQASPVNTVITPBGSGY 174
Db 147 YESLIRNIIPIRSGSSRRIRASGEKFTBEGFOSKLDKDPRAQPCQSSPKIDVVISASSS 206
QY 175 NNTLDHGLCTAFEDSTLGDDAEANFTAVFAPPIRABLE-ALPGVNTLDEEDVNLMDMCF 233
Db 207 NNTLDPGCTCFVEDESLADVEANFTATFAPSIQRLENLDSVTTLTDEVTYLMCMCF 266
QY 234 DTVARTSDATQOLSPECLETFADEN-QYDIQSL-KTYGACAPLCPAOCVGF-NELIAR 290
Db 267 DTSTSTVDKLSFPCFLPHDEMIVHYDQLSKYKGHAGNPLPTQGVGYNELIAR 326
QY 291 LTHSPVDHTSTNHTLSDNATPEPLNATYADESHNTWVJEFALGYNKPLSTSTV 350
Db 327 LTHSPVHDITSSNHTLSDNATPEPLNATYADESHDNGIISILFALGYNKPLSTSTV 386
QY 351 EST-ETDGYASTVTPPARAVYEMMQCEAGGGGEGEKEPLVRLVNDRVVPLHGCYD 409
Db 387 ENITQDGFSSAMTVFPASRLYEMMQCOA-----EQEPLVRLVNDRVVPLHGCYD 439
QY 410 KLGCRCKLDPEVEGLSPFARSGGNMAECFA 437
Db 440 ALGCRTRDSIVRGLSPFARSGGNMAECFA 467

RESULT 8

US-08-609-426A-8
Sequence 8, Application US/08609426A
Patent No. 5830733

GENERAL INFORMATION:

APPLICANT: Nevalainen, Helena K.M.
APPLICANT: Paloheimo, Marja T.
APPLICANT: Miettinen-Oinonen, Arja S.K.
APPLICANT: Torkkeli, Tuula K.
APPLICANT: Cantrell, Michael
APPLICANT: Piddington, Christopher S.
APPLICANT: Rambosek, John A.
APPLICANT: Turunen, Marja K.
APPLICANT: Fagerstr m, Richard B.
APPLICANT: Houston, Christine S.
TITLE OF INVENTION: Production of Phytase Degrading Enzymes
TITLE OF INVENTION: In Trichoderma
NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox
STREET: 1100 New York Avenue, Suite 600
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20005

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/609,426A
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/923,724
FILING DATE: 31-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/496,155
FILING DATE: 19-MAR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/044,077
FILING DATE: 29-APR-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: UK 8610600

Query Match	72.7%;	Score 1688;	DB 2;	Length 467;
Best Local Similarity	73.9%;	Pred. No. 3,3e-172;		
Matches 331;	Conservative 40;	Mismatches 59;	Indels 18;	Gaps 10;

ADDRESS: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 NEW YORK AVENUE, SUITE 600
CITY: WASHINGTON
STATE: DC
COUNTRY: USA
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/374,652C
FILING DATE: 24-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/07058
FILING DATE: 27-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/925,401
FILING DATE: 31-JUL-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: REED, GRANT E.
REGISTRATION NUMBER: 41,264
REFERENCE/DOCKET NUMBER: 1050.071001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: not relevant
MOLECULE TYPE: protein
US-08-374-652C-2

DB : 440 ALGCRTRDSFVRLSFGSGDMAECFA 467

RESULT 10

US-08-151-574-32
Sequence 32, Application US/08151574
Patent No. 5436156

GENERAL INFORMATION:

APPLICANT: Robert F.M. Van Gorcom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Paridon
APPLICANT: Annemarie E. Veestra
APPLICANT: Rudolf G.M. Luitin
TITLE OF INVENTION: Cloning and Expression of Microbial
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Morrison & Foerster
STREET: 545 Middlefield Road, Suite 200
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025-3471

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/151,574
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/688,578
FILING DATE: 24-MAY-1991
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026.00
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-327-7250
INFORMATION FOR SEQ ID NO: 32:

SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-151-574-32

Query Match 72.6%; Score 1684; DB 1; Length 467;
Best Local Similarity 73.9%; Pred. No. 8.9e-172;
Matches 331; Conservative 40; Mismatches 59; Indels 18; Gaps 10;

QY 1 NSHSCDPTVD-GYOC-PEISHLMGQYSPFSLADESAISDPVPGKCRVTFVQVLSRHGARY 58
DB 27 NQSSCDPTVDGYOCFSESHLMGQYAPFFSLANESVISEPVPGKCRVTFVQVLSRHGARY 86
QY 59 PTSSKSKKYSALIERIQKNA-TFGKRYAFLKTYNTLIGADDLTPFGENQMVNSGIRFYRR 117
DB 87 PTDSKSKKYSALIEEQVATTFDQKATFLKTYNTSLGADDLTPFGELVNSGIRFYRR 146
QY 118 YKLANIVPEYVNASGSDRYASAEFTIGFOSAKLADP---AHOASPVINVIIEGSGY 174
DB 147 YKSLTNIVPEYVNASGSDRYASAEFTIGFOSAKLADPRAOPGOSPIDVVISBASSS 206
QY 175 NNTLIDGLCTAEDSTLIGDAENFTAVFAPPIRALLE-ALPGVNTLDDVYVNMIDKCPF 233
DB 207 NNTLIDGLCTAEDSTLIGDAENFTAVFAPPIRALLE-ALPGVNTLDDVYVNMIDKCPF 266

QY 234 DTVARTDQATQSPFCDLFTADEN-QYDYLSL-KYYGYAGNPLGPAQGVGF-NELIAR 290
DB 267 DTISTSTVDTKLSPECDLFTHEWINDYDLSLKYYGHGAGNPLGPTQGVAGNANLIAR 326
QY 291 LTHSPVODHTSTNHTLDSNPATFPLNATLADFSHNTWYSIFPALGLNGKPLSTTSV 350
DB 327 LTHSPVODHTSSNHTLDSNPATFPLNSTLYADFSHNGIISILFALGLNGKPLSTTSV 386
QY 351 EST-ETDGYASMTVPFARAVYEMQCEAGGGGEGEKEPELVRLVYNRPVPLHGCYVD 409
DB 387 ENLTQDGFSSAMTVPRASRLYEMMQCA-----EDPELVRLVYNRPVPLHGCYVD 439
QY 410 KLGCKLDDPEVEGISTFARSNGNAECFA 437
DB 440 ALGCRTRDSFVRLSFGSGDMAECFA 467

RESULT 11

US-08-146-424-20
Sequence 20, Application US/08146424
Patent No. 553963

GENERAL INFORMATION:

APPLICANT: VAN OOIJEN, ALBERT J. J.
APPLICANT: RIETVELD, KRJUN
APPLICANT: HOEKEMA, ANDREAS
APPLICANT: PEN, JAN
APPLICANT: SIMONS, PETER C.
APPLICANT: VERWERD, TEUNIS C.
TITLE OF INVENTION: THE EXPRESSION OF PHYTASE IN PLANTS
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/146,424
FILING DATE: 02-NOV-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: KENNEDY, BILL
REGISTRATION NUMBER: 33,407
REFERENCE/DOCKET NUMBER: 44615-20011.24
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
TELEFAX: (415) 494-0792
TELEX: 706141

INFORMATION FOR SEQ ID NO: 20:

SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-146-424-20

Query Match 72.6%; Score 1684; DB 1; Length 467;
Best Local Similarity 73.9%; Pred. No. 8.9e-172;
Matches 331; Conservative 40; Mismatches 59; Indels 18; Gaps 10;

QY 1 NSHSCDPTVD-GYOC-PEISHLMGQYSPFSLADESAISDPVPGKCRVTFVQVLSRHGARY 58
DB 27 NQSSCDPTVDGYOCFSESHLMGQYAPFFSLANESVISEPVPGKCRVTFVQVLSRHGARY 86
QY 59 PTSSKSKKYSALIERIQKNA-TFGKRYAFLKTYNTLIGADDLTPFGENQMVNSGIRFYRR 117

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?       TOPOLOGY: linear
?       MOLECULE TYPE: protein
?       FRAGMENT TYPE: internal
?       FEATURE:
?       NAME/KEY: Signal Sequence
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US-08-693-709-2

Query Match          72.6%; Score 1684; DB 1; Length 467;
Best Local Similarity 73.9%; Pred. No. 8.9e-172;
Matches 331; Conservative 40; Mismatches 59; Indels 18; Gaps 10.

Oy      1 NSHSCDFVD-GYOC-PEISHLMGOKSPFSLADESAISPDVPKSCRYTFYOVLSRHGARY 58
      | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      27 MOSCSDTFVDGYOCPEFSETSLMGQVAPFSLANESVISPEVPACRCVTFQVAVLSRHGARY 86

Oy      59 PTSSRSKRYASALIERIQKNA-TFKGKYAFLLKTYNTTLCADDLTPFGENOMVNSIKFYRR 117
      | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      87 PTDSKGRKYSALIEIQNATTFDGGYAFLLKTYNTSLADDLTPFGDELVNSGIKFYOR 146

Oy      118 YKALARNIVFVRRASGSDRVIASAEKFTGPGSAKLADP---AAQASPIVIVITPESSGY 174
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Db      147 YESLIRNIVPEFIRSSGGSRYIASGRKFEIGFQSTYKLPDRAQPGQSSFKIDVVISSEASS 206

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; LENGTH: 467 amino acid
; TYPE: amino acid
; STRANDEDNESS: single
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; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25

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RESULT 14
 US-08-819-825-3
 ; Sequence 3, Application US/08819825
 ; Patent No. 5866118
 ; GENERAL INFORMATION:
 ;
 ; APPLICANT: Berka, Randy M.
 ; APPLICANT: Ray, Michael W.
 ; APPLICANT: Klotz, Alan V.
 ; TITLE OF INVENTION: Polypeptides Having Phytase Activity
 ; TITLE OF INVENTION: And Nucleic Acids Encoding Same
 ; NUMBER OF SEQUENCES: 5
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: No. 58661180 No. 5866118disk of No. 5866118th America, Inc
 ; STREET: 405 Lexington Avenue, Suite 6400
 ; CITY: New York
 ; STATE: New York

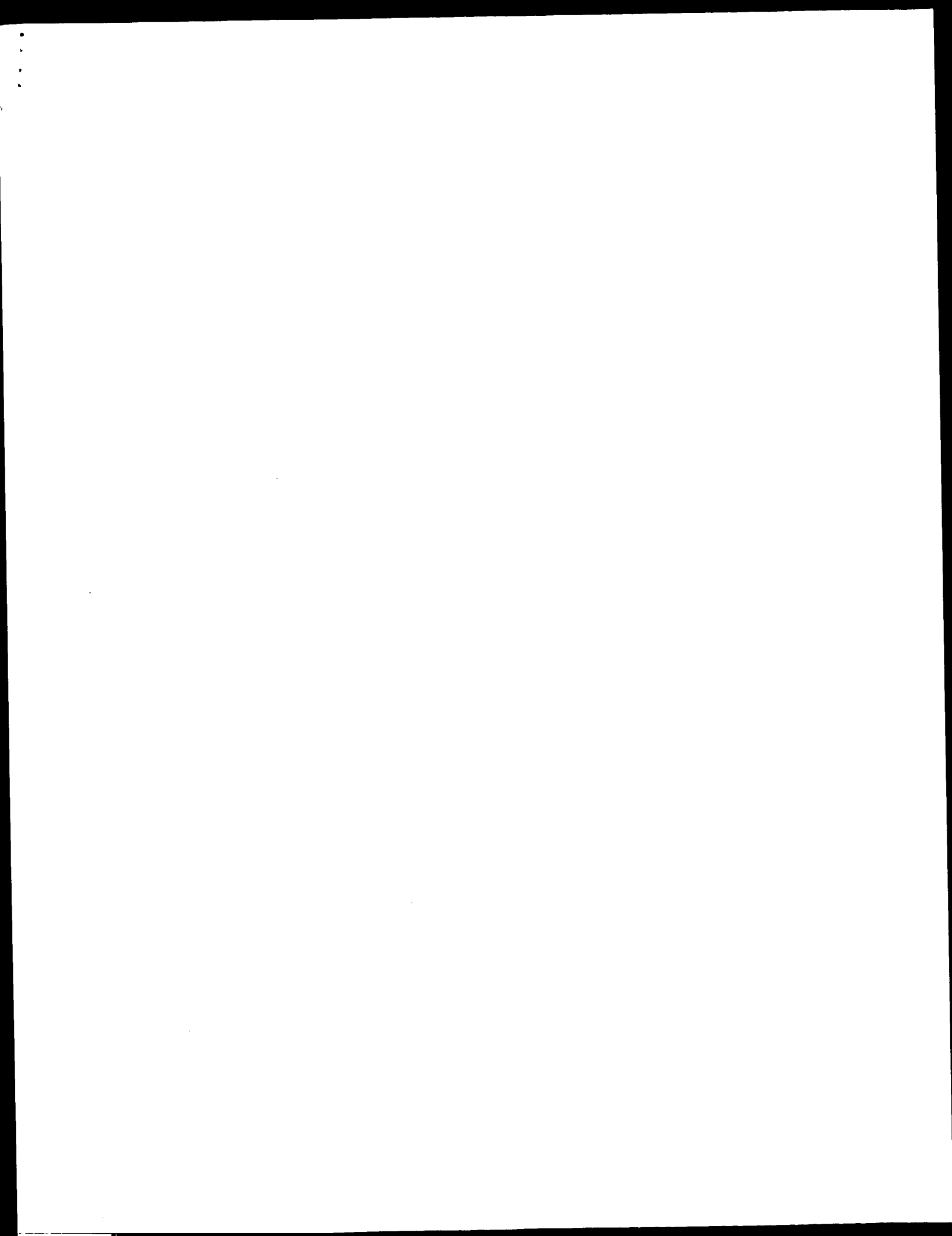
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RESULT 15
US-09-163-642-3
: Sequence 3, Application US/09163642
: Patent No. 6221644
:
: GENERAL INFORMATION:
:
: APPLICANT: Berka, Randy M.
: APPLICANT: Ray, Michael W.
: APPLICANT: Klocz, Alan V.
:
: TITLE OF INVENTION: Polypeptides Having Phylase Activity

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479 GTTGTGTTCTGACAGAGTATGTTGCTGCTGAAAGTTGATGAGGT 528
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 151 PheGlnSerAlaLysLeuAlaAspProGlySerGlnProHisGlnAla 167
 579 TCCAGTTTAAAGTGATCATTCGAGAGGATCCGCTTACAAACAACCTT 628
 167 rProValIleAspValIleIleProGluGlySerGlyTyrHisnSnH 184
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 979 TTGACTACTCTCAGTTCAGAGACACACTTCTACTAACACACTTGGGA 1028
 301 LeuThrArgSerProValGlnAspHisThrSerThrAsnHisThrLeuAs 317
 1029 CTCTAACCCAGCTACTTCCATTGAGAGGCTACTTGTAGCGTCGACCTCT 1078
 317 pSerAsnProAlaThrPheProLeuAsnAlaThrLeuTyrAlaAspHis 334
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 334 eThiAspHisSerMetIleSerIlePhePheAlaLeuGlyLeuTyrAsn 350
 1129 GGTACCAACACTTGTCTACTACTTCTGTGAATCTATTTGAAGAACTGA 1178
 351 GlyThrAlaProLeuSerThrThrSerValGlnSerIleGlnGlnThrAs 367
 1179 CGGTACTCTGCTTCTGAGCTGCTCCATTCGCTGCTAGAGCTTACGTTG 1228
 367 pGlyTyrSerAlaSerTyrThrValProPheGlyAlaArgAlaTyrValG 384
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 1279 AACGACAGAGTTGTTCCATTGACAGGTTGCTGTTGACAGTTGGGTAG 1328
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 417 gCysLysArgAspAspPheValGlnGlyLeuSerPheAlaArgSerGlyG 434
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434 lYAsnTrpAlaGluCysPheAla 441

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seq_documentation_block:

; Sequence 2, Application US/09121425
 ; Patent No. 6153418
 ; GENERAL INFORMATION:
 ; APPLICANT: Lehmann, Martin
 ; TITLE OF INVENTION: Consensus Phylases
 ; FILE REFERENCE: consensus phylases 13239
 ; CURRENT APPLICATION NUMBER: US/09/121,425
 ; EARLIER FILING DATE: 1998-07-23
 ; EARLIER APPLICATION NUMBER: EPO 97112688.3
 ; NUMBER OF SEQ ID NOS: 20
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 2
 ; LENGTH: 467
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence:consensus
 ; US-09-121-425-2

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Percent Similarity: 90.760 Percent Identity: 89.733

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 1 MetGlyAlaPheValIleLeuLeuSerIleAlaThrLeuPheGlySerThr 17
 51 ATCCGGTACCGCCCTTGGGCTCGTGGTAAATCTCACTTGTGACACTG 100
 17 rSerGlyThrAlaLeuGlyProArgGlyAsnSerHisSerCysAspThrVal 34
 101 TTGACGGGTGTACCAATGTTTCCAGAAATTTCTCACTTGTGGGTACC 150
 34 AlaAspGlyGlyTyrGlnCysPheProGluIleSerHisLeuTyrGln 50
 151 TACTCTCATCTCTCTTTGGGACAGAGATCTGCTATTTCTCCAGACGT 200
 51 TyrSerProTyrPheSerLeuGluAspGluSerAlaIleSerProAspVal 67
 201 TCCAGACAGAGTAGAGTACTTCTGTTCAAGTTTGTCTAGACAGGTTG 250
 67 lProAspAspCysArgValIThrPheValGlnValLeuSerArgHisGlyVal 84
 251 CTAGATACCCAACTTCTTTCGCTGTAAGCTTACTCTGCTTGGTATGAA 300
 84 lArgTyrProThrSerSerLysSerLysAlaTyrSerAla..... 97
 301 GCTATTCAAAAAGAACGCTACGCTTTCAGAGGTAAAGTACGTTTCTTGA 350
 97 97
 351 GACTTACAACTACACTTGGGTGCTGACGACTGATGATTCATTCGGTAAA 400
 98 .ThrTyrAsnTyrThrLeuGlyAlaAspAspLeuThrProPheGlyGlu 114
 401 ACCAAATGTTTAACTCTGCTATTAAGTCTACAGAGATTAACAGGCTTGG 450
 114 snGlnMetValAsnSerGlyIleLysPheTyrArgArgTyrLysAlaLeu 130

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451 GCTAGAAAGATTGTCATTCATTAGAGCTCTGTTCTGACAGACTAT 500
131 AlarGlysIleValProheIleAlaSerGlySerAspArgValI 147
501 TGTCTTGTGGAAGTTCATTGAGGTTTCCATCTGCTAAGTTGGCTG 550
147 eAlaSerAlaGluLysPheIleGluGlyPheGlnSerAlaLysLeuAla 164
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164 sProGlySerGlnProHISGlnAlaSerProValIleAspLeuIleGlu 180
591 ..... 591
181 AlalIeGluLysAsnAlaThrAlaPheLysGlyLysTyrAlaPheLeuL 197
592 .GTGATCATTCAGAAAGATCGGTTTACACAACTTTGGACACGGTA 640
197 sValIleIleProGluGlySerGlyTyrAsnAsnThrLeuAspHisGlyT 214
641 GTTGTACTGCTTTGCAAGACTCTGAATTAGTGACGACGTTGAAGCTAAC 690
214 hCysThrAlaPheGluAspSerGluLeuGlyAspAspValGluAlaAsn 230
691 TTCAGTGGCTTTGTGCTCCAGCTATTAGAGCTAGATTGGAAGCTGACTT 740
231 PheThrAlaLeuPheAlaProAlaIleArgAlaArgLeuGluAlaAspLe 247
741 GCCAGGTGTACTTTGACTGACGAAAGAGCTGTTTACTGATGACAGCT 790
247 uProGlyAlaThrLeuThrAspGluAspValValTyrLeuMetAspMetC 264
791 GTCCATTGGACACAGTGCCTGAAACTTGTGACGCTACTGAATTGTCTCA 840
264 ySPProheGluThrValAlaArgThrSerAspAlaThrGluLeuSerPro 280
841 TTCTGTGCTTTGTCACCTCAGCAGAAATGATCGAATAACGACTCTTGA 890
281 PheCysAlaLeuPheThrHisAspGluThrArgGlnTyrAspTyrLeuG 297
891 AAGCTTGGGTAAGTACTACGCTTACGCTGCTGTAACCCATTGGGTCAG 940
297 nSerLeuGlyLysTyrGlyTyrGlyAlaGlyAsnProLeuGlyPro 314
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314 laGlnGlyValGlyPheAlaAsnGluLeuIleAlaArgLeuThrArgSer 330
991 CCACTTAAGACCACTTCTACTAACCACTTGGACTCTAACCCAGC 1040
331 ProValGlnAspHisThrSerThrAsnHisThrLeuAspSerAsnProAl 347
1041 TACTTCCCATTAAGGCTACTTGTTCAGCTGCTTCTCTCAGCAGACA 1090
347 aThrPheProLeuAsnAlaThrLeuTyrAlaAspPheSerHisAspAsn 364
1091 CTATGATATCTATTTCTTGGCTTGGGTTTGTACAACGGTACAGCA 1140
364 erMetIleSerIlePhePheAlaLeuGlyLeuTyrAsnGlyThrAlaPro 380
1141 TTGTCTACTACTTCTGTGATCTATTGAAGAACTGACGGTTACTCTGC 1190
381 LeuSerThrThrSerValGlnSerIleGluGlyThrAspGlyTyrSerAl 397
1191 TTCTTGAGCTGTTCATTCGCTGCTAGCTTACGTTGAATGATGACAT 1240
397 aserTPrIThrValProPheGlyAlaArgAlaTyrValGluMetMetGlnC 414
1241 GTCAACGTAAAAAGAACATTGGTTAGAGTTTGGTTAACGACAGAGTT 1290
414 ySGlnAlaGluLysGluProLeuValArgValLeuValAsnAspArgVal 430

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1291 GTTCATTGCAACGGTTGTGCTGTGACAACTTGGGTAGTAGTAGAGA 1340
431 ValProLeuHisGlyCysAlaValAlaSpLysLeuGlyArgCysLysArgAs 447
1341 CGACTTCGTTGAAGTTTGTCTTTCGCTAGATCTGCTGTAACCTGGGCTG 1390
447 pasPheValGluGlyLeuSerPheAlaArgSerGlyGlyAsnTrpAlaG 464
1391 AATGTTTCGCT 1401
464 LucYsPheAla 467

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seq_name: /cgn2_6/prodata/2/laa/5A.COMB.pep:US-07-923-724-8

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seq_documentation_block:
; Sequence 8, Application US/07923724
; Patent No. 5780292
; GENERAL INFORMATION:
; APPLICANT: Nevalainen, Helena K.M.
; APPLICANT: Palohelmo, Marja T.
; APPLICANT: Miettinen-Oinonen, Arja S.K.
; APPLICANT: Torkkeli, Tuula K.
; APPLICANT: Cantrell, Michael
; APPLICANT: Piddington, Christopher S.
; APPLICANT: Rambosek, John A.
; APPLICANT: Turunen, Marja K.
; APPLICANT: Fagerstr m, Richard B.
; TITLE OF INVENTION: Production of Phytase Degrading Enzymes
; NUMBER OF SEQUENCES: 66
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox
; STREET: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentln Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/923,724
; FILING DATE: 31-Jul-1992
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: UK 8610600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: Cimbalà, Michele A.
; REGISTRATION NUMBER: 33,851
; REFERENCE/DOCKET NUMBER: 1050.0240004
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-07-923-724-8

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351	GACTTACAACATACACTTTGGGTGGCGACGACTTACATCCATGGGTGAAA	400
117	shIryIrsnIyStrySerIeugIyAlaaspAspLeuIthrProPheoIyGluG	134
4401	ACCAATGCTTAACCTGGTATTAAGTCTTACAGAAATGCAAGAGCTTG	450
134	InGuIeValAsnSerIcIyIleuSpherIyGlnArgIyGlnSerIeIu	150
451	GCTGAAGATGTGTTCCATTCATTAGAGCTTCGTGTTCTGACAGACTTAT	500
1151	ThrArgAsnIleIleProPheIleArgIySerSerIcIySerSerArgValI	167
501	TGCTTCTGCTGAAGAAGTTCATTGAAGGTTTCCATCGCTACGTAACCTGG	550
167	eAlaSerIcIyGlnuIySpherIleGlnIleGlnIleInsIthrIySleuIyA	184
184	SPProAlaGlnIleProGlnIleInsIserProIySleasPAlaValIle	200
601	CCAGAGAGTCCGGTACAAACACACACTTTGGACGACGAGTATGTATCCG	650
001	SerGlnAlaSerSerSerAsnAsnIthrLeuAspProGlnIyThcIyStryA	217
551	TTTCGAGACTCTGATTTAGGTAGCAGACGTTGAAGCTTAACCTTCACTGCTT	700
117	IPheIuIleAspSerGlnuIeAlaAspPheIyAlaGlnAlaAsnPheIthrAlat	234
01	TGTTGGCTCCAGCTATTTAGAGCTAGATTTGAAGCTGACTTGGCAGCTGT	750
334	hrPheAlaProserIleArgIleGlnArgIleGlnAsnAspSeruSerIyAl	250
51	ACTTTGACTGACAAACAGCTTGTTTACTTGATGACATGTGTCCATTGCA	800
51	ThrLeuIthrAspIthrIcIyAlaThryIyLeuMetAspMetCysSerPheAs	267
01	CAGTCTGGTAGAAGTCTTGGACGCTAGCAATGTTGCTCATTTGTGCTT	850
67	pIhrIleSerIthrIthrValAspIthrIySleuSerProPheCysAspI	284
51	TGTTCACTACAGACGATGATGCATACGATACGACTTGCAAAGCTTGGGT	900
01	eupheIthrIAspIgluItrPleIleInsItyAspIyLeuGlnSerIeulcIyS	300
01	AAGTACTAGCGTTAGCGGTGGTAAACCATTTGGTCCAGCTCAAGCTGT	950
01	IyStryIyIyGlnIleGlnIyAlaIcIyAsnProIeugIyProIthrIIngIyA	317
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84	spAspIthrSerSerAsnIshIthrLeuaspSerAsnProAlaIthrPhePro	350
51	TTGAACGCTACTTTGTATCGTACGCTTCTCTACACAAACACTATGATATC	1100
51	LeuAsnSerIthrLeuIyAlaAspPheSerIthAspAsnGlnIleIleIe	367
01	TATTTCTTGGCTTGGTTTGTACAACGGTACCAGCCATTTGTACTTA	1150
67	rIleLeuPheAlaIeugIyLeuIyAlaGlnGlnIyIthrIySProIeSerIthrT	384
1	CTTCTGTTGAATCTATTGAAGAACAACCTACGCTTACCTGCTTGGAGCT	1200
1	hrIthrValGlnAsnIleGlnGlnIthrIAspIyPheIserSerAlaIthrPthr	400

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1      LENGTH: 467 amino acids
2      TYPE: amino acid
3      STRANDEDNESS: single
4      TOPOLOGY: not relevant
5      MOLECULE TYPE: protein
6      US-08-374-652C-2

alignment_scores:
      Quality: 1879.00      Length: 467
      Ratio: 4.495      Gaps: 0
      Percent Similarity: 89.507      Percent Identity: 75.589

alignment_block:
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1  MetGlyValSerIleValIleuLeuProIeuIleuLeuIleuIleuIleuIleuValTh  17
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51  ATCCGGTACCGCCCTTGCGCTCGCTGGTAAATTCACCTCTTGACACTG  100
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17  rSerGlyLeuAlaValProIleSerIleArgAsnGlnSerThrCysAspThrV  34
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51  TyrAlaProPhePheSerLeuAlaAsnIleSerAlaIleSerProAspVa  67
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201  TCCAGACGACTGAGACTTACTTTCTGCTCAAGTTTGTCTGACAGCGTG  250
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67  lProAlaGlyCysArgValThrPheAlaGlnValLeuSerAlaGlnIleGly  84
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84  lAlaGlyTrpThrGlnIleuSerGlyLysIleValSerAlaLeuIleGln  100
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301  GCTATTTCAAAGAACGCTACTGCTTTCACAGGTAGTAGGCTTCTTGAA  350
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101  GlnIleGlnGlnAsnValThrThrPheAspGlyIleValAlaPheLeuIle  117
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117  SThrIleAsnIlePheSerLeuGlyAlaAspSerPheThrProPheGlyGln  134
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401  ACCAAATGGTTACTCTGTGATTAAAGTTTACAGAAATACAAAGCGCTTG  450
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451  GGTAGAAATATGGTTCATTCATTAGAGCTTGGCTTGCAGACAGTTAT  500
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167  eAlaSerGlyGlnIlePheIleGlnIleGlyPheGlnSerThrLysLeuIle  184
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201  SerGlnAlaIleSerSerSerAsnAsnThrLeuAspProGlyThrCysThrVa  217
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801 CACGTGCTGAGAACTTCTGACGCTAGTGAATGTCTCCATTGCTGCT 850
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267 PThrIleSerThrSerThrValAspThrIlySleuSerProPheCysAsp 284
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851 TGTTCACCTGACGAGAAATGATGATCCAAATACGACTACTTGCAGAGCTGGGT 900
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284 euePheThrHisAspGluThrIleHisIlyAspIlyLeuGlnSerLeuIly 300
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434 IsgIlyCysProIleAspAlaLeuGlyIArgCysThrArgAspSerPheVal 450
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1351 GAAGGTTTCTTTCGCTAGATCTGTGTGTAAGTGGGCTGAAATGCTGCG 1400
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451 ArgGlyLeuSerPheAlaArgSerGlyIlyAspThrAlaGluCysSerAl 467
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1401 T 1401
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467 a 467

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seq_documentation_block:
; Sequence 32, Application US/08151574
; Patent No. 5436156

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; GENERAL INFORMATION:
; APPLICANT: Robert F.M. Van Gorcom
; APPLICANT: Willem Van Harlingsveldt
; APPLICANT: Petrus A. Van Paridon
; APPLICANT: Annemarie E. Veenstra
; APPLICANT: Rudolf G.M. Luttin
; APPLICANT: Gerardus Selten

```

```

; TITLE OF INVENTION: Cloning and Expression of Microbial
; TITLE OF INVENTION: Phytase
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Morrison & Foerster
; STREET: 545 Middlefield Road, Suite 200
; CITY: Menlo Park
; STATE: California
; COUNTRY: USA
; ZIP: 94025-3471
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/151,574
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/688,578
; FILING DATE: 24-MAY-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H.
; REGISTRATION NUMBER: 29,959
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-327-7250
; INFORMATION FOR SEO ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
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Quality: 1875.00 Length: 467
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Align seg 1/1 to: US-08-151-574-32 from: 1 to: 467

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51 ATCCGCTACCGCCTTGCGTCGCTGTAATGCTACTGTTGACACTG 100
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84 IArgIlyProThrAspSerIlyGlyIlyIlySerAlaLeuIleGlu 100
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301 GCTATTCAAAAGACGCTACTGCTTTCAGGGTAAATGACGCTTCTTGAA 350

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401 ValProPheAlaSerArgLeuTyrValGluMetMetGlnCysGlnAlaIaG1 417
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417 uGlnGlnProLeuValArgValLeuValAsnAspArgValValProLeuH 434
1301 ACGGTTGGCTGTGACCAAGTTGGTAGATGTAAAGACAGACGACTTGGT 1350
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434 tSgLYcSProValASpAlaLeuclYArgCysThrArgAspSerPheVal1 450
1351 GAAGGTTTGTCTTCGCTACATCTGTGGTGAACCTGGCGATGGATTGGC 1400
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seq_documentation_block:
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; Patent No. 5593963

GENERAL INFORMATION:
APPLICANT: VAN OOIJEN, ALBERT J. J

APPLICANT: RIEVELD, KRION
APPLICANT: HOEKEMA, ANDREAS

APPLICANT: PEN, JAN
APPLICANT: SIMONS, PETER C.

APPLICANT: VERWOERD, TEUNIS C.
TITLE OF INVENTION: THE EXPRESSION OF PHYTASE IN PLANTS

NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:

ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road

CITY: Palo Alto
STATE: California

COUNTRY: USA
STD: 94304-1018

ZIP: 94004 101
COMPUTER READABLE
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; MEDIUM TYPE: floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS

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; OPERATING SYSTEM:  PC DOS/MS DOS
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; SOFTWARE:  PatentIn Release #1.0,
;             PatentIn.DAT

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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/146,424

;;
FILING DATE: 02-NOV-1993
CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: KENNEDY, BILL

REGISTRATION NUMBER: 33,407
REFERENCE/DOCKET NUMBER: 44615-20011.24

TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600

TELEFAX: (415) 494-0792
TELE: 706141

LEDA. 100111
; INFORMATION FOR SEQ ID NO: 20
; CHARACTERISTICS.

SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids

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;      TYPE: amino acid
;      TOPOLOGY: linear

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MOLECULE TYPE
US-08-146-424-20

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alignment_scores: 1875.00 Length: 467
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Ratio:	4.475	Percent Identity:	75.589
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17  SerGlyLeuAlaValProAlaSerArgSerGlnSerSerCysAspIleH 34
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34  AlaSerGlnIleTyrGlnCysPheSerGlnThrSerHisLeuIlePheGln 50
151  TACTCTCACTCTCTTTGGCAGACGAAATGCTATTCTTCAGAGCT 200
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51  TyrAlaProPhePheSerLeuAlaSerValIleSerProGlnVal 67
201  TCCAGACGCTGTAGATTACTTGTTCAGATTGTTGCTAGACAGCTG 250
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67  ProAlaGlyCysArgValThrPheAlaGlnValLeuSerArgHisGly 84
251  CTGATATCCCACTTCTTGTGCTGCTAGAGCTTACTGCTTGAATGAA 300
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84  LaArgTyrProThrAspSerIleGlyLysTyrSerAlaLeuIleGln 100
301  GCTATTCAAAAGACGCTACTGCTTTCAGGGTAAAGTACGCTTCTTGA 350
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101  GluIleGlnGlnAlaThrThrPheAspGlyLysTyrAlaPheLeuIle 117
351  GACTTACACTACACTTGTGGGCTGAGACTGACTGACTGCTTCCGTTG 400
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401  ACCAAATGCTTAACCTGCTGATTAAGTTTCAAGAGATACAAAGCTTGG 450
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451  GCTGGAAGATTGTCATTCATTAAGCTTCTGCTGCTGCTGCTGCTGCT 500
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151  ThrArgSerIleValProPheIleArgSerSerIleSerSerArgVal 167
501  TGTCTGCTGAAAAGTTTCATTTGAAGTTTCAATCTGTAAGTTGGCTG 550
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167  eAlaSerGlyLysLysPheIleGlnGlyPheGlnSerThrLysLeuLys 184
551  ACCAGGTTGCAACCAACCAAGCTTCTCCAGTTATTAACTGATCATT 600
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184  SProAlaGlnAlaGlnProGlyGlnSerSerProLysIleAspValIle 200
601  CCAGAAAGATCCGGTTACACACACTTGGACCAAGCTTCTGCTGCTG 650
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201  SerGlnLysSerSerSerAsnThrLeuAspProGlyThrCysThrVal 217
651  TTTCGAAGACTTGAATTAAGTACGACGCTTGAAGCTTAATCTGCTG 700
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701  TGTTCGCTCAGCTATTAGAGTAGATTTGAAGCTTGAAGCTTGAAGCT 750
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751  ACTTTAGACGACGAGAGCTGTTTACTTGAAGACATGTCATTCATCA 800
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267  pThrIleSerThrSerThrValAspThrLysLeuSerProPheCysAsp 284
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317  GlnTyrAlaAsnGlnIleuLeuAlaArgLeuThrHisSerProValHis 334
1001  ACCACACTTCTACTAACACACTTGGACTTGAACCAAGCTTGTTCCT 1050
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367  rIleLeuPheAlaLeuGlyLeuTyrGlnGlyThrLysProLeuSerThr 384
1151  CTCTGCTTGAATCTAATGAAGAACTGACGCTTACTGCTGCTGCTGCT 1200
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384  hrThrValGlnAsnIleThrGlnThrAspGlyPheSerSerAlaThrPhe 400
1201  GTTCCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1250
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401  ValProPheAlaSerArgLeuTyrValGlnMetGlnCysGlnAlaG 417
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1351  GAAGTTTGTCTTGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1400
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seq_documentation_block:
? Sequence 2, Application US/08693709
? Patent No. 5770413
? GENERAL INFORMATION:
? APPLICANT: VAN OOLJEN, ALBERT J.J.
? APPLICANT: RIETVELD, KRILN
? APPLICANT: HOEKEMA, ANDREAS
? APPLICANT: PEN, JAN
? APPLICANT: SIMONS, PETER C.
? TITLE OF INVENTION: THE EXPRESSION OF PHYTASE
? NUMBER OF SEQUENCES: 28
? CORRESPONDENCE ADDRESS:
? ADDRESSEE: MORRISON & FOERSTER
? STREET: 755 PAGE MILL ROAD
? CITY: Palo Alto
? STATE: CA
? COUNTRY: USA
? ZIP: 94304-1018
? COMPUTER READABLE FORM:
? MEDIUM TYPE: diskette
? COMPUTER: IBM Compatible
? OPERATING SYSTEM: DOS
? SOFTWARE: FastSeq for Windows Version 2.0
? CURRENT APPLICATION DATA:

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; Patent No. 5863533
; GENERAL INFORMATION:
; APPLICANT: Robert F.M. Van Gorcom
; APPLICANT: Willem Van Hartingsveldt
; APPLICANT: Petrus A. Van Paridon
; APPLICANT: Annemarie E. Veenstra
; APPLICANT: Rudolf G.M. Luttin
; APPLICANT: Gerardus Selten
; TITLE OF INVENTION: Cloning and Expression of Microbial
; TITLE OF INVENTION: Phylase
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Morrison & Foerster
; STREET: 2000 Pennsylvania Ave. N.W., Suite 5500
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/419,448
; FILING DATE: 10-APR-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H.
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 24615-20026.10
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; INFORMATION FOR SEQ ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-419-448-32

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Percent Similarity: 89.722 Percent Identity: 75.589

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17 rserGlyLeuAlaValProAlaSerAlaGlnInsSerCysAspThr 34
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251 CTAGATACCCACTTCTTGGCTGCTAAGGCTTACTGCTTGGATTGAA 300
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401 ACCAAATGTTAAGTCTGCTATTAGTTCTACAGAAATACAGGCTTGG 450
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751 ACTTTGACTGACGAGAGCTTGTACTTGATGGACATGTGTCCATTCGA 800
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251 ThrLeuThrAspThrGluValThrTyrLeuMetAspMetCysSerPheAs 267
801 CACTGCTGCTAGACTTCTGACGCTACTGATGATGTCTCCATCTGTGCT 850
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267 pThrIleSerThrSerThrValAspThrLysLeuSerProPheCysAsp 284
851 TGTTCACCTACGACGAGATGGATCCAAATGACTACTTGAACAGCTGG 900
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284 eupheThrHisAspGluTrpIleAsnTyrAspTyrLeuGlnInsSerLeu 300
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351 leuanserthrleuylalaasprhserhisaspsnelylleise 367
1101 TATTTCTGCTTTGGTTGTACACAGCTTACCAAGCCATGCTACTA 1150
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367 rilleuphealaleuclyleuylrnsnglythrlysproleuSerthrt 384
1151 CTTCGTGTAATCTATTGAAGAACTGACGCTACTCTGCTTTGGACT 1200
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1301 ACGGTTGCTGTTGACAAAGTTGGTGATGTAAAGACAGACGCTTGGT 1350
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; Sequence 3, Application US/08819825

; Patent No. 5866118

; GENERAL INFORMATION:

; APPLICANT: Berka, Randy M.

; APPLICANT: Klotz, Alan V.

; TITLE OF INVENTION: Polypeptides Having Phytase Activity

; TITLE OF INVENTION: And Nucleic Acids Encoding Same

; NUMBER OF SEQUENCES: 5

; CORRESPONDENCE ADDRESS:

; ADDRESS: No. 58661180 No. 5866118disk of No. 5866118th America, Inc.

; STREET: 405 Lexington Avenue, Suite 6400

; CITY: New York

; STATE: New York

; COUNTRY: U.S.A.

; ZIP: 10174-6401

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; OPERATING SYSTEM: DOS

; SOFTWARE: FastSeq for Windows Version 2.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/819, 825

; FILING DATE: 18-MAR-1997

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

; NAME: Lambiris, Elias J.

; REGISTRATION NUMBER: 33,728

; REFERENCE/DOCKET NUMBER: 4758, 200-US

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 212 867 0123

; TELEFAX: 212 867 0238

; INFORMATION FOR SEQ ID NO. 3:

; SEQUENCE CHARACTERISTICS:

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; LENGTH: 467 amino acids
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; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-819-825-3

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alignment_scores:
  Quality: 1875.00      Length: 467
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  Percent Similarity: 89.722  Percent Identity: 75.589

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alignment_block:

US-09-488-265-28 x US-08-819-825-3

Align seg 1/1 to: US-08-819-825-3 from: 1 to: 467

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: Sequence 3, Application US/09163642
: Patent No. 6221644
: GENERAL INFORMATION:
: APPLICANT: Berka, Randy M.
: APPLICANT: Ray, Michael W.
: APPLICANT: Klotz, Alan V.
: TITLE OF INVENTION: Polypeptides Having Phytase Activity
: TITLE OF INVENTION: And Nucleic Acids Encoding Same
: NUMBER OF SEQUENCES: 5
: CORRESPONDENCE ADDRESS:

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ADDRESSSEE: No. 62216440 No. 62216444disk of No. 6221644th America, Inc.
STREET: 405 Lexington Avenue, Suite 6400
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10174-6401
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/163,642
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/819,825
FILING DATE: 18-MAR-1997
ATTORNEY/AGENT INFORMATION:
NAME: Lambiris, Elias J.
REGISTRATION NUMBER: 33,728
REFERENCE/DOCKET NUMBER: 4758, 200-US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 867 0123
TELEFAX: 212 867 0298
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-09-163-642-3

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? Sequence 32, Application US/09233510
? Patent No. 6350602

? GENERAL INFORMATION:

? APPLICANT: Robert F.M. Van Gorcom
? APPLICANT: Willem Van Hartingsveldt

? APPLICANT: Petrus A. Van Paridon
? APPLICANT: Annemarie E. Veenstra

? APPLICANT: Rudolf G.M. Luttin
? APPLICANT: Gerardus Selten

? TITLE OF INVENTION: Cloning and Expression of Microbial
? TITLE OF INVENTION: Phytase

? NUMBER OF SEQUENCES: 52

? CORRESPONDENCE ADDRESS:
? ADDRESS: Morrison & Foerster

? STREET: 545 Middlefield Road, Suite 200
? CITY: Menlo Park

? STATE: California
? COUNTRY: USA

? ZIP: 94025-3471

? COMPUTER READABLE FORM:
? MEDIUM TYPE: Floppy disk

? COMPUTER: IBM PC compatible
? OPERATING SYSTEM: PC-DOS/MS-DOS

? SOFTWARE: PatentIn Release #1.0, Version #1.25

? SOFTWARE: PatentIn Release #1.0, Version #1.25

? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: US/09/233,510

? FILING DATE:
? CLASSIFICATION:

? PRIORITY APPLICATION DATA:
? APPLICATION NUMBER: 07/688,578

? FILING DATE: 24-MAY-1991
? ATTORNEY/AGENT INFORMATION:

? NAME: Murashige, Kate H.
? REGISTRATION NUMBER: 29,959

? REFERENCE/DOCKET NUMBER: 24615-20026,00
? TELECOMMUNICATION INFORMATION:

? TELEPHONE: 415-327-7250
? TELEFAX: 415-327-2951

? INFORMATION FOR SEQ ID NO: 32:
? SEQUENCE CHARACTERISTICS:

? LENGTH: 467 amino acids
? TYPE: amino acid

? TOPOLOGY: linear
? MOLECULE TYPE: protein

? US-09-233-510-32

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; Sequence 33, Application US/08868435
; Patent No. 6291221
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: United States of America
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/868.435
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/744,231
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Mon Jul 8 08:27:57 2002

us-09-488-265-28.n2p.ra1

Page 16

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1      FILING DATE:
2      ATTORNEY/AGENT INFORMATION:
3      NAME: Kass, Alan P
4      REGISTRATION NUMBER: 32142
5      REFERENCE/DOCKET NUMBER: Case Docket 9339
6      TELECOMMUNICATION INFORMATION:
7      TELEPHONE: (201) 235-4205
8      TELEFAX: (201) 235-2363
9      INFORMATION FOR SEQ ID NO: 33:
10     SEQUENCE CHARACTERISTICS:
11     LENGTH: 465 amino acids
12     TYPE: amino acid
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; Patent No. 6358722
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: United States of America
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/744,231
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/424,757
; FILING DATE: 18-APR-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Kass, Alan P
; REGISTRATION NUMBER: 32142
; REFERENCE/DOCKET NUMBER: Case Docket 9339
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-4205
; TELEFAX: (201) 235-2363
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 465 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
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; Sequence 3, Application US/09155855
; Patent No. 6139902
; GENERAL INFORMATION:
; APPLICANT: KONDO, Hidemasa
; APPLICANT: ANAZAWA, Hideharu
; APPLICANT: KANEKO, Syunichi
; APPLICANT: NAGASHIMA, Tadashi
; APPLICANT: TANKE, Tatsuya
; TITLE OF INVENTION: NOVEL PHYTASE AND GENE ENCODING SAID PHYTASE
; FILE REFERENCE: 81356/124
; CURRENT APPLICATION NUMBER: US/09/155,855
; CURRENT FILING DATE: 1998-10-05
; EARLIER APPLICATION NUMBER: WO PCT/JP97/011175
; EARLIER FILING DATE: 1997-04-04
; EARLIER APPLICATION NUMBER: JP 084314
; NUMBER OF SEQ ID NOS: 7
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; US-09-155-855-3

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Mon Jul 8 08:27:57 2002

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; FILE REFERENCE: consensus phytases 13339
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; CURRENT FILING DATE: 1998-07-23
; EARLIER APPLICATION NUMBER: EPO 97112688.3
; EARLIER FILING DATE: 1997-07-24
; NUMBER OF SEQ ID NOS: 20
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; OTHER INFORMATION: Description of Artificial Sequence:consensus
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Db 301 LFRSPVQDHTSTNHTLDSNPATFPLNATLYADFSDNSMISIFALGLYNGTAPLSTTSV 360
Qy 387 ESIEEEDGSSAWTVPFARAYVEMMOCAKEPLVRLVNDRVYPLHGCADVLRCKR 446
Db 361 ESIEEEDGSSAWTVPFARAYVEMMOCAKEPLVRLVNDRVYPLHGCADVLRCKR 420
Qy 447 DDFVEGLSFARSGGNWAECEFA 467
Db 421 DDFVEGLSFARSGGNWAECEFA 441

RESULT 2
US-09-121-425-2
; Sequence 2, Application US/09121425
; Patent No. 6153418
; GENERAL INFORMATION:
; APPLICANT: Lehmann, Martin
; TITLE OF INVENTION: Consensus Phytases
; FILE REFERENCE: Consensus Phytases 13239
; CURRENT APPLICATION NUMBER: US/09/121,425
; EARLIER FILING DATE: 1998-07-23
; EARLIER APPLICATION NUMBER: EPO 97112688.3
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentln Ver. 2.0
; SEQ ID NO 2
; LENGTH: 467
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:consensus
; US-09-121-425-2

Query Match 92.2%; Score 2270; DB 4; Length 467;

Best Local Similarity 89.7%; Pred. No. 2,4e-229; Indels 40; Gaps 2;
Matches 437; Conservative 3; Mismatches 7;

Qy 1 MGVEVLLSTATLFGSTGTALGPRGNSHSCDVTVDGYYGCFPEISHLMGTYSPYFSLADE 60
Db 1 MGVEVLLSTATLFGSTGTALGPRGNSHSCDVTVDGYYGCFPEISHLMGTYSPYFSLADE 60
Qy 61 SAISPDPDDCRVTEVOVLSRHGARYPTSSKSAKYSALIEAIOKNATAFKGYAFLKTYN 120
Db 61 SAISPDPDDCRVTEVOVLSRHGARYPTSSKSAKYSALIEAIOKNATAFKGYAFLKTYN 100
Qy 121 YTLGADLTPEGENOMNSGKIFRYRKALARKIVPIRASGSDRVIASAEKFTIEGQSA 180
Db 101 YTLGADLTPEGENOMNSGKIFRYRKALARKIVPIRASGSDRVIASAEKFTIEGQSA 160
Qy 181 KLADPGSOPHOASPVIN-----VIIPEGSSVNNLTIDHGTCTAFED 220
Db 161 KLADPGSOPHOASPVIDIEAIOKNATAFKGYAFLKTYNIIPEGSSVNNLTIDHGTCTAFED 220
Qy 221 SELGDDVANTTALFAPAIRIRLEADLPVLTDEDDVYIMDMCPFEVARTSDATELSP 280
Db 221 SELGDDVANTTALFAPAIRIRLEADLPVLTDEDDVYIMDMCPFEVARTSDATELSP 280
Qy 281 FCALFTHDEWTOYDYLQSLGKYYGAGNPLGPAQGVGFANELIARLTHSVQDHTSTNH 340
Db 281 FCALFTHDEWTOYDYLQSLGKYYGAGNPLGPAQGVGFANELIARLTHSVQDHTSTNH 340
Qy 341 TLDSPAFPLNATLYAOFSDNMISTFFALGLYNGTAPLSTTSVESIEETDYSASWT 400
Db 341 TLDSPAFPLNATLYAOFSDNMISTFFALGLYNGTAPLSTTSVESIEETDYSASWT 400
Qy 401 VPFARAYVEMMOCAKEPEPLVRLVNDRVYPLHGCADVLRCKRDDVEVGLSFARSGG 460
Db 401 VPFARAYVEMMOCAKEPEPLVRLVNDRVYPLHGCADVLRCKRDDVEVGLSFARSGG 460
Qy 461 NMACEFA 467
Db 461 NMACEFA 467

Db 461 NMACEFA 467

RESULT 3
US-07-923-724-8
; Sequence 8, Application US/07923724
; Patent No. 5780292
; GENERAL INFORMATION:
; APPLICANT: Nevalainen, Helena K.M.
; APPLICANT: Paloheimo, Marja T.
; APPLICANT: Miettinen-Oinonen, Arja S.K.
; APPLICANT: Torkkeli, Tuula K.
; APPLICANT: Cantrell, Michael
; APPLICANT: Piddington, Christopher S.
; APPLICANT: Rambosek, John A.
; APPLICANT: Turunen, Marja K.
; APPLICANT: Fagerström, Richard B.
; TITLE OF INVENTION: Production of Phytase Degrading Enzymes
; NUMBER OF SEQUENCES: 66
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox
; STREET: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: Patentln Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/923,724
; FILING DATE: 31-Jul-1992
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: UK 8610600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: Cimbalá, Michele A.
; REGISTRATION NUMBER: 33,851
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-07-923-724-8

Query Match 76.3%; Score 1879; DB 1; Length 467;
Best Local Similarity 75.6%; Pred. No. 2,4e-188; Indels 0; Gaps 0;
Matches 353; Conservative 41; Mismatches 73;

Qy 1 MGVEVLLSTATLFGSTGTALGPRGNSHSCDVTVDGYYGCFPEISHLMGTYSPYFSLADE 60
Db 1 MGVEVLLSTATLFGSTGTALGPRGNSHSCDVTVDGYYGCFPEISHLMGTYSPYFSLADE 60
Qy 61 SAISPDPDDCRVTEVOVLSRHGARYPTSSKSAKYSALIEAIOKNATAFKGYAFLKTYN 120
Db 61 SAISPDPDDCRVTEVOVLSRHGARYPTSSKSAKYSALIEAIOKNATAFKGYAFLKTYN 120

QY 121 YTLGADLTPEGENOMVNSGKIFRRYKALARKIVPPIRASGSDRVYASAEKFEFGQSA 180
 Db 121 YSLGADLTPEGEOLVNSGKIFQRYESLIRNIIPIRSGSSRVYASAEKFEFGQST 180
 QY 181 KLADPGSOPHASPVINIIVIEGSGYNNITDHGCTAFEDSELDGDDVEANFTALFAPAIR 240
 Db 181 KLKPRAPQGGSSPKIDIVISEASSNNITDPCGTVEFDESELDVTEANFTAFAPSIR 240
 QY 241 ARLEADLPGLTDEDDVYVLMDCPEPTVARTSPATELSFCALETFDEWIOYDYQSLG 300
 Db 241 QRLNDLSGLVTLTDEVTYVLMDCSFTISTSTVDFKLSFCDLTFHDEWIDYQSLG 300
 QY 301 KYGAGNPLGPAQSGFANELIARLTHSPVDHSTNTHTLSDNPATPELNTLYADF 360
 Db 301 KYGAGNPLGPTQGVYANELIARLTHSPVHDTSSNHTLSDNPATPELNTLYADF 360
 QY 361 HDNMTISIFPAGLYNCTKPLSTTSVESEETDGYASMTVPPAARYVMCOCKEPE 420
 Db 361 HDNMTISIFPAGLYNCTKPLSTTSVESEETDGYASMTVPPAARYVMCOCKEPE 420
 QY 421 LVRVLVNDRVVPLHGCANDKLGRCRDEVEGLSFARSGGMAECFA 467
 Db 421 LVRVLVNDRVVPLHGCPIDALGRCRDSFVRGLSFARSGGMAECFA 467

RESULT 4 US-08-609-426A-8

; Sequence 8, Application US/08609426A
 ; Patent No. 5830733
 ; GENERAL INFORMATION:
 ; APPLICANT: Nevalainen, Helena K.M.
 ; APPLICANT: Paloheimo, Maria T.
 ; APPLICANT: Miettinen-Oinonen, Aija S.K.
 ; APPLICANT: Torkkeli, Tuula K.
 ; APPLICANT: Cantrell, Michael
 ; APPLICANT: Piddington, Christopher S.
 ; APPLICANT: Rambosek, John A.
 ; APPLICANT: Turunen, Maria K.
 ; APPLICANT: Fagerström, Richard B.
 ; APPLICANT: Houston, Christine S.
 ; TITLE OF INVENTION: Production of Phytase Degrading Enzymes
 ; NUMBER OF SEQUENCES: 69
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Sterne, Kessler, Goldstein & Fox
 ; STREET: 1100 New York Avenue, Suite 600
 ; CITY: Washington
 ; STATE: D.C.
 ; COUNTRY: U.S.A.
 ; ZIP: 20005
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/609,426A
 ; FILING DATE: 01-MAR-1996
 ; CLASSIFICATION: 435
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/923,724
 ; FILING DATE: 31-JUL-1992
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/496,155
 ; FILING DATE: 19-MAR-1990
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/044,077
 ; FILING DATE: 29-APR-1987
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: UK 8610600
 ; FILING DATE: 30-APR-1986
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Reed, Grant E.

REGISTRATION NUMBER: P-41,264
 REFERENCE/DOCKET NUMBER: 1050.0080001
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (202) 371-2600
 TELEFAX: (202) 371-2540
 INFORMATION FOR SEQ ID NO: 8:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 467 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-609-426A-8

Query Match 76.3%; Score 1879; DB 2; Length 467;
 Best Local Similarity 75.6%; Pred. No. 2,4e-188;
 Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGFEVLLSIATLPGSTGALGPRGNHSCDYDGGYQCPPELSHMGYSYFSLADE 60
 Db 1 MGVSAYLPLVLAGVYGLAVPASNOSTCDYDGGYQCPPELSHMGYAPFSLANE 60
 QY 61 SAISPDVDDCRVTFVQVLSRHGARYPTSSAKAYSALEIAIKNATFAKGYAFLKTYN 120
 Db 61 SAISPDVDDCRVTFVQVLSRHGARYPTSSAKAYSALEIAIKNATFAKGYAFLKTYN 120
 QY 121 YTLGADLTPEGENOMVNSGKIFRRYKALARKIVPPIRASGSDRVYASAEKFEFGQSA 180
 Db 121 YSLGADLTPEGEOLVNSGKIFQRYESLIRNIIPIRSGSSRVYASAEKFEFGQST 180
 QY 181 KLADPGSOPHASPVINIIVIEGSGYNNITDHGCTAFEDSELDGDDVEANFTALFAPAIR 240
 Db 181 KLKPRAPQGGSSPKIDIVISEASSNNITDPCGTVEFDESELDVTEANFTAFAPSIR 240
 QY 241 ARLEADLPGLTDEDDVYVLMDCPEPTVARTSPATELSFCALETFDEWIOYDYQSLG 300
 Db 241 QRLNDLSGLVTLTDEVTYVLMDCSFTISTSTVDFKLSFCDLTFHDEWIDYQSLG 300
 QY 301 KYGAGNPLGPAQSGFANELIARLTHSPVDHSTNTHTLSDNPATPELNTLYADF 360
 Db 301 KYGAGNPLGPTQGVYANELIARLTHSPVHDTSSNHTLSDNPATPELNTLYADF 360
 QY 361 HDNMTISIFPAGLYNCTKPLSTTSVESEETDGYASMTVPPAARYVMCOCKEPE 420
 Db 361 HDNMTISIFPAGLYNCTKPLSTTSVESEETDGYASMTVPPAARYVMCOCKEPE 420
 QY 421 LVRVLVNDRVVPLHGCANDKLGRCRDEVEGLSFARSGGMAECFA 467
 Db 421 LVRVLVNDRVVPLHGCPIDALGRCRDSFVRGLSFARSGGMAECFA 467

RESULT 5

; Sequence 2, Application US/08374652C
 ; Patent No. 5834286
 ; GENERAL INFORMATION:
 ; APPLICANT: NEVALAINEN, HELENA K.M.
 ; APPLICANT: PALOHEIMO, MARIA T.
 ; APPLICANT: FAGERSTROM, RICHARD B.
 ; APPLICANT: MIETTINEN-OINONEN, AIJA S.
 ; APPLICANT: TURUNEN, MARIA K.
 ; APPLICANT: RAMBOSEK, JOHN A.
 ; APPLICANT: PIDDINGTON, CHRISTOPHER S.
 ; APPLICANT: HOUSTON, CHRISTINE S.
 ; APPLICANT: CANTRELL, MICHAEL A.
 ; TITLE OF INVENTION: RECOMBINANT CELLS, DNA CONSTRUCTS,
 ; TITLE OF INVENTION: VECTORS AND METHODS FOR EXPRESSING PHYTASE DEGRADING
 ; NUMBER OF SEQUENCES: 94
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
 ; STREET: 1100 NEW YORK AVENUE, SUITE 600
 ; CITY: WASHINGTON

STATE: DC
COUNTRY: USA
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/374,652C
FILING DATE: 24-MAY-1995
CLASSIFICATION: 435
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/07058
FILING DATE: 27-JUL-1993
CLASSIFICATION: 435
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 07/925,401
FILING DATE: 31-JUL-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: REED, GRANT E.
REGISTRATION NUMBER: 41,264
REFERENCE/DOCKET NUMBER: 1050,071001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEFAX: 202-371-2540
INFORMATION FOR SEQ. ID NO. 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: not relevant
MOLECULE TYPE: protein
US-08-374-652C-2

Query Match 76.3%; Score 1879; DB 2; Length 467;
Best Local Similarity 75.6%; Pred. No. 2,4e-188;
Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGCVVLLSTATLFGSTGTAIGPRGNSHSCDVTGCGVOCFPEISHMGTSYPSFLADE 60
DB 1 MGVSALLPLTLLGVTSGLAIVPARNOSCTDYGOCFSESHMGQYAPFFSLANE 60
QY 61 SAISPDVDDCRVTFYOVLSRHGARYPTSSASKAYSALIEAIOQNATFEKGYAEFLKTYN 120
DB 61 SAISPDVAGCRVTFEAOVLSRHGARYPTESKGGKYSALIEIOQNATFEKGYAEFLKTYN 120
QY 121 YTLGADLTPFGENOMVNSGKIFRRYKALARKIVPFRASGSDRYIASAEKFEIGFOSA 180
DB 121 YSLGADLTPFGEOELVNSGKIFRYEESLTRNLIPTIRSSGSRVYASGEKFEIGFQST 180
QY 181 KLADPGSOPHASPVIINVIIEGSGYNNTLDHGTCTAFEDSELGDDVEANFTALFAPAIR 240
DB 181 KLADPRAPGSSPKIDVYISEASSNNITLDPGCTVFEDELADTYEANTATFAPSIR 240
QY 241 ARLEADLPGVTLTDEDEVYVYLMDCPEDTVARTSDATELSPCALFTHDEWIOYDIYLOSIG 300
DB 241 ORLENDLSGVTLTDEVTYVYLMDCSFDTISTVDTKLSPCDELFTHDEWVHYDIYLOSIG 300
QY 301 KYTGGAGNPLGPGAGVGFANELLARLTHSPVODHTSTNHLTDSNPATFPLNATLYADES 360
DB 301 KYTGGAGNPLGPGAGVGFANELLARLTHSPVODHTSTNHLTDSNPATFPLNATLYADES 360
QY 361 HNTMTISFFALGLNGTKPLSTSVESIEETDGYASASVTVPFAARAVEMQCAEKEP 420
DB 361 HNGIISIFALGLNGTKPLSTSTVENITOTDGFSSAMTVPFASRLYVEMQCAEKEP 420
QY 421 LVRVLVNDRVPLHGCAYDKLGRCKRDQFVBSLFABSGGNMAECSA 467
DB 421 LVRVLVNDRVPLHGCAYDKLGRCKRDQFVBSLFABSGGNMAECSA 467

RESULT 6
US-08-151-574-32
; Sequence 32, Application US/08151574
; Patent No. 5436156
GENERAL INFORMATION:
APPLICANT: Robert F. M. Van Gorcom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Paridon
APPLICANT: Annemarie E. Veenstra
APPLICANT: Rudolf G.M. Luitin
TITLE OF INVENTION: Cloning and Expression of Microbial
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Morrison & Foerster
STREET: 545 Middlefield Road, Suite 200
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025-3471
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/151,574
FILING DATE:
CLASSIFICATION: 435
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 07/688,578
FILING DATE: 24-MAY-1991
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026.00
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-327-7250
INFORMATION FOR SEQ. ID NO. 32:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-151-574-32

Query Match 76.2%; Score 1875; DB 1; Length 467;
Best Local Similarity 75.6%; Pred. No. 6.3e-188;
Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGCVVLLSTATLFGSTGTAIGPRGNSHSCDVTGCGVOCFPEISHMGTSYPSFLADE 60
DB 1 MGVSALLPLTLLGVTSGLAIVPARNOSCTDYGOCFSESHMGQYAPFFSLANE 60
QY 61 SAISPDVDDCRVTFYOVLSRHGARYPTSSASKAYSALIEAIOQNATFEKGYAEFLKTYN 120
DB 61 SVISPEVPACGRVTFEAOVLSRHGARYPTSSASKAYSALIEAIOQNATFEKGYAEFLKTYN 120
QY 121 YTLGADLTPFGENOMVNSGKIFRRYKALARKIVPFRASGSDRYIASAEKFEIGFOSA 180
DB 121 YSLGADLTPFGEOELVNSGKIFRYEESLTRNLIPTIRSSGSRVYASGEKFEIGFQST 180
QY 181 KLADPGSOPHASPVIINVIIEGSGYNNTLDHGTCTAFEDSELGDDVEANFTALFAPAIR 240
DB 181 KLADPRAPGSSPKIDVYISEASSNNITLDPGCTVFEDELADTYEANTATFAPSIR 240
QY 241 ARLEADLPGVTLTDEDEVYVYLMDCPEDTVARTSDATELSPCALFTHDEWIOYDIYLOSIG 300
DB 241 ORLENDLSGVTLTDEVTYVYLMDCSFDTISTVDTKLSPCDELFTHDEWVHYDIYLOSIG 300

QY 301 KYYGAGNPLGPAQGVGFANELLARLTHSPYODHTSTNHTLDSNPATPLNATLYADFS 360
DB 301 KYYGAGNPLGPAQGVGFANELLARLTHSPYODHTSTNHTLDSNPATPLNATLYADFS 360
QY 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGYASMTVPFARAYEMMOCAQER 420
DB 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGYASMTVPFARAYEMMOCAQER 420
QY 421 LVRLVNDRVVPLHGCAVDKLGCRKRDPEVGLSFARSGGMAECFA 467
DB 421 LVRLVNDRVVPLHGCAVDKLGCRKRDPEVGLSFARSGGMAECFA 467

RESULT 7
US-08-146-424-20
; Sequence 20, Application US/08146424
; Patent No. 5593963
; GENERAL INFORMATION:
; APPLICANT: VAN COIJEN, ALBERT J. J.
; APPLICANT: RIETVELD, KRIJN
; APPLICANT: HOEKEMA, ANDREAS
; APPLICANT: PEN, JAN
; APPLICANT: SIMONS, PETER C.
; APPLICANT: VERWOERD, TEUNIS C.
; TITLE OF INVENTION: THE EXPRESSION OF PHYTASE IN PLANTS
; NUMBER OF SEQUENCES: 31
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER
; STREET: 755 Page Mill Road
; CITY: Palo Alto
; STATE: California
; COUNTRY: USA
; ZIP: 94304-1018
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/146,424
; FILING DATE: 02-NOV-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: KENNEDY, BILL
; REGISTRATION NUMBER: 33,407
; REFERENCE/DOCKET NUMBER: 44615-20011.24
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 813-5600
; TELEFAX: (415) 494-0792
; TELEX: 706141
; INFORMATION FOR SEQ ID NO: 20:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-146-424-20

Query Match 76.2%; Score 1875; DB 1; Length 467;
Best Local Similarity 75.6%; Pred. No. 6.3e-188;
Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGVFVLLSIALIFGSGTALGPRGNHSCDTPVGGYQCPEPISHLWGTSPYSLADE 60
DB 1 MGVSAILPLFLYLSGTVSLAVPASRNOSCDTPVGGYQCFSESHMGQVAPFFSLANE 60
QY 61 SAISPDPDCVTFYOVYSRHGARYPSASAKASALIEALQKAAVAFKGYAFLKTYN 120
DB 61 SVTSPVPAGCAVTRAQVLSRHGARYPDSKGRKYSALIEELQONATTFDEGVAFLKTYN 120
QY 121 YVIGADLTPFGENQMVNSGIFKFRYKALARKIVPFIKASGSDRVIASAKFIEGPOSA 180

DB 121 YVIGADLTPFGENQMVNSGIFKFRYKALARKIVPFIKASGSDRVIASAKFIEGPOSA 180
QY 181 KLADPGSOPHQAQSPVINVITPESSGYNNTLDHCTCAFDESELGDEVENFTALFAPAIR 240
DB 181 KLADPRAQPOSSPKIDVYVSEASSNNNTLDPCTCFVFEDESLADVEANFTATVEPSIR 240
QY 241 ARLEADLPVGLTDEDEVVYLMDCPPFIVARISDATERLSPFALFTHDEMYDYLQSLG 300
DB 241 ORLENDLSGVTLTDEVTYLMDCSPDTISTSTVDRKLPFCDLFTHDEMYDYLQSLG 300
QY 301 KYYGAGNPLGPAQGVGFANELLARLTHSPYODHTSTNHTLDSNPATPLNATLYADFS 360
DB 301 KYYGAGNPLGPAQGVGFANELLARLTHSPYODHTSTNHTLDSNPATPLNATLYADFS 360
QY 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGYASMTVPFARAYEMMOCAQER 420
DB 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGYASMTVPFARAYEMMOCAQER 420
QY 421 LVRLVNDRVVPLHGCAVDKLGCRKRDPEVGLSFARSGGMAECFA 467
DB 421 LVRLVNDRVVPLHGCAVDKLGCRKRDPEVGLSFARSGGMAECFA 467

RESULT 8
US-08-693-709-2
; Sequence 2, Application US/08693709
; Patent No. 5770413
; GENERAL INFORMATION:
; APPLICANT: VAN COIJEN, ALBERT J. J.
; APPLICANT: RIETVELD, KRIJN
; APPLICANT: HOEKEMA, ANDREAS
; APPLICANT: PEN, JAN
; APPLICANT: SIMONS, PETER C.
; APPLICANT: VERWOERD, TEUNIS C.
; TITLE OF INVENTION: THE EXPRESSION OF PHYTASE
; NUMBER OF SEQUENCES: 28
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER
; STREET: 755 PAGE MILL ROAD
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304-1018
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/693,709
; FILING DATE: 07-AUG-1996
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/146,424
; FILING DATE: 02-NOV-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 24615-20011.10
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-813-5600
; TELEFAX: 415-494-0792
; TELEX: 706141
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: Internal

FEATURE:
NAME/KEY: Signal Sequence
LOCATION: 1..23
OTHER INFORMATION:
US-08-693-709-2

Query Match 76.2%; Score 1875; DB 1; Length 467;
Best Local Similarity 75.6%; Pred. No. 6.3e-188;
Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGVEFVLLSIATLFGSTGALGPRGNSHSCDVTGQCFPEISHLMTGYSPEFLADE 60
1 MGVSAYLLPLYLISGVTSLAVPASRNOSCDVTGQCFSESHLMQGYAPFESLANE 60
QY 61 SAISPDVDDCRVTFVQVLSRHGARYPTSSASKAYSALIAIONKATAFKGYAFLKTYN 120
1 SVISPEVPAGCRVTFQVLSRHGARYPTSSASKAYSALIAIONKATAFKGYAFLKTYN 120
DB 61 SVISPEVPAGCRVTFQVLSRHGARYPTSSASKAYSALIAIONKATAFKGYAFLKTYN 120
QY 121 YTLGADLTPFEGENQMVNSGIFRYRYKALARKIYPIFIRASGSDRYIASAKETIEGFOA 180
121 YSLGADLTPFEGELVNSGIFRYRYKALARKIYPIFIRASGSDRYIASAKETIEGFOA 180
QY 181 KLADPGSOPHOASPVYINVIIPGSGYNNITLDHGTCTAFEDSELGDVYANFTALPAPAIR 240
181 KLADPGSOPHOASPVYINVIIPGSGYNNITLDHGTCTAFEDSELGDVYANFTALPAPAIR 240
DB 181 KLADPGSOPHOASPVYINVIIPGSGYNNITLDHGTCTAFEDSELGDVYANFTALPAPAIR 240
QY 241 ARLEADLPGLTDEDVYVYLMDCPFDVATSDATELSPFALTHDEMIOYDYLQSLG 300
241 QLENDLSGVTITDEVTYVYLMDCSPFDISTSTVDTKLSPCDLFTHDEMIOYDYLQSLG 300
QY 301 KYYGAGNPLGPGVGFANELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
301 KYYGAGNPLGPGVGFANELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
DB 301 KYYGAGNPLGPGVGFANELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
QY 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGSASWTVPPARAYVEMMOQAQKEP 420
361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGSASWTVPPARAYVEMMOQAQKEP 420
DB 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGSASWTVPPARAYVEMMOQAQKEP 420
QY 421 LVRLVNDRVVPLHGCAYDKLGRCKRDPEVGLSFARSGGMAECFA 467
421 LVRLVNDRVVPLHGCAYDKLGRCKRDPEVGLSFARSGGMAECFA 467
DB 421 LVRLVNDRVVPLHGCAYDKLGRCKRDPEVGLSFARSGGMAECFA 467

RESULT 9
US-08-419-448-32
Sequence 32, Application US/08419448
Patent No. 5863533
GENERAL INFORMATION:
APPLICANT: Robert F.M. Van Gorkom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Paridon
APPLICANT: Annemarie E. Veenstra
APPLICANT: Rudolf G.M. Luitlin
TITLE OF INVENTION: Cloning and Expression of Microbial
TITLE OF INVENTION: Phytase
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Morrison & Foerster
STREET: 2000 Pennsylvania Ave. N.W., Suite 5500
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/419,448

FILING DATE: 10-Apr-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026.10
TELEPHONE: 202-887-1500
TELECOMMUNICATION INFORMATION:
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-419-448-32

Query Match 76.2%; Score 1875; DB 2; Length 467;
Best Local Similarity 75.6%; Pred. No. 6.3e-188;
Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGVEFVLLSIATLFGSTGALGPRGNSHSCDVTGQCFPEISHLMTGYSPEFLADE 60
1 MGVSAYLLPLYLISGVTSLAVPASRNOSCDVTGQCFSESHLMQGYAPFESLANE 60
QY 61 SAISPDVDDCRVTFVQVLSRHGARYPTSSASKAYSALIAIONKATAFKGYAFLKTYN 120
1 SVISPEVPAGCRVTFQVLSRHGARYPTSSASKAYSALIAIONKATAFKGYAFLKTYN 120
DB 61 SVISPEVPAGCRVTFQVLSRHGARYPTSSASKAYSALIAIONKATAFKGYAFLKTYN 120
QY 121 YTLGADLTPFEGENQMVNSGIFRYRYKALARKIYPIFIRASGSDRYIASAKETIEGFOA 180
121 YSLGADLTPFEGELVNSGIFRYRYKALARKIYPIFIRASGSDRYIASAKETIEGFOA 180
QY 181 KLADPGSOPHOASPVYINVIIPGSGYNNITLDHGTCTAFEDSELGDVYANFTALPAPAIR 240
181 KLADPGSOPHOASPVYINVIIPGSGYNNITLDHGTCTAFEDSELGDVYANFTALPAPAIR 240
DB 181 KLADPGSOPHOASPVYINVIIPGSGYNNITLDHGTCTAFEDSELGDVYANFTALPAPAIR 240
QY 241 ARLEADLPGLTDEDVYVYLMDCPFDVATSDATELSPFALTHDEMIOYDYLQSLG 300
241 QLENDLSGVTITDEVTYVYLMDCSPFDISTSTVDTKLSPCDLFTHDEMIOYDYLQSLG 300
QY 301 KYYGAGNPLGPGVGFANELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
301 KYYGAGNPLGPGVGFANELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
DB 301 KYYGAGNPLGPGVGFANELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
QY 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGSASWTVPPARAYVEMMOQAQKEP 420
361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGSASWTVPPARAYVEMMOQAQKEP 420
DB 361 HDNTMISIFPALGLYNGTKPLSTTSVESIEETDGSASWTVPPARAYVEMMOQAQKEP 420
QY 421 LVRLVNDRVVPLHGCAYDKLGRCKRDPEVGLSFARSGGMAECFA 467
421 LVRLVNDRVVPLHGCAYDKLGRCKRDPEVGLSFARSGGMAECFA 467
DB 421 LVRLVNDRVVPLHGCAYDKLGRCKRDPEVGLSFARSGGMAECFA 467

RESULT 10
US-08-819-825-3
Sequence 3, Application US/08819825
Patent No. 5866118
GENERAL INFORMATION:
APPLICANT: Berka, Randy M.
APPLICANT: Ray, Michael W.
APPLICANT: Klotz, Alan V.
TITLE OF INVENTION: Polypeptides Having Phytase Activity
TITLE OF INVENTION: And Nucleic Acids Encoding Same
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 5866118 of No. 5866118disk of No. 5866118ch America, Inc.
STREET: 405 Lexington Avenue, Suite 6400
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10174-6401
COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette
 COMPUTER: IBM Compatible
 OPERATING SYSTEM: DOS
 SOFTWARE: FASTSEQ for Windows Version 2.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/819,825
 FILING DATE: 18-MAR-1997
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: Lambiris, Elias J.
 REGISTRATION NUMBER: 33,728
 REFERENCE/DOCKET NUMBER: 4758.200-US
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 212 867 0123
 TELEFAX: 212 867 0298
 INFORMATION FOR SEQ. ID NO: 3:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 467 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 US-08-819-825-3

Query Match 76.2%; Score 1875; DB 2; Length 467;
 Best Local Similarity 75.6%; Pred. No. 6.3e-188;
 Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGFEVLLSLATLFGSTGTALGPRGNHSCDTPVGGYOCFPEISHLMGYSPYSLADE 60
 DB 1 MGSAVALLPLYLGLSVTSLGAVPASRNQSSCDTVGQYCFSETSHLMQYAPFSLANE 60
 QY 61 SAISPDVDDCARTFEVYVLSRHGARYPTSSASAKAYSALIEAIOKNATFAFGKATLKTYN 120
 DB 61 SVISPEVAGCARTFAQVLSRHGARYPTDSKGYKYSALIEEIQONATTFEDGKATLKTYN 120
 QY 121 YTLGADLLTPFGENQWNSGKIFRYRKLARKIYVPIRASGSDRYIASNEKFIQFQSA 180
 DB 121 YSLGADLLTPFGEQELVNSGKIFQRYESLIRNIYVPIRSGSSSRVYASGKFFIEGFQST 180
 QY 181 KLADPGSQPHQASPVINVIIPESGYNNTLDHGTCTAFEDSELGDVVEANFATLPAFAPR 240
 DB 181 KKLDPAGQSGSPKIDVVISSEASSNNITLDPGCTCFEDELADTVVEANFATLPAFAPR 240
 QY 241 ARLEADLPVTLTDEVDVYILMDKCPDVTARTSDATELSPCALTFHDEWIOYDLOSIG 300
 DB 241 QRLNDLSGVTLLTDEVTYILMDKCFDTITSTVDTKLSPCDLTFHDEWINYDLOSIG 300
 QY 301 KYTGAGNPLGPAQGVGFANELIARLTHSPVODHTSTNHTLDSNPATFPLNATLYADES 360
 DB 301 KYTGAGNPLGPTQGVGFANELIARLTHSPVHDTSSNHTLDSNPATFPLNATLYADES 360
 QY 361 HDNMTISIFPALGLYNGTRPLSTTVESEIETDGYASATVPFAARAYEMMOCAKEP 420
 DB 361 HDNGIISILFALGLYNGTRPLSTTVEENITQDGFSSAMTVFASRLYVEMMOCAQEGEP 420
 QY 421 LVAVLVNDRVPLHGCVAVDKLGCRKRDVEGLSPARSGGMAECFA 467
 DB 421 LVAVLVNDRVPLHGCVPYDALGRCTRDSFVRGLSPARSGGMAECFA 467

RESULT 11
 US-09-163-642-3
 Sequence 3, Application US/09163642
 Patent No. 6221644
 GENERAL INFORMATION:
 APPLICANT: Berk, Randy M.
 APPLICANT: Ray, Michael W.
 APPLICANT: Klotz, Alan V.
 TITLE OF INVENTION: Polypeptides Having Phytase Activity
 TITLE OF INVENTION: And Nucleic Acids Encoding Same
 NUMBER OF SEQUENCES: 5
 CORRESPONDENCE ADDRESS:

ADDRESSEE: No. 62216440 No. 6221644disk of No. 6221644th America, Inc.
 STREET: 405 Lexington Avenue, Suite 6400
 CITY: New York
 STATE: New York
 COUNTRY: U.S.A.
 ZIP: 10174-6401
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Diskette
 COMPUTER: IBM Compatible
 OPERATING SYSTEM: DOS
 SOFTWARE: FASTSEQ for Windows Version 2.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/163,642
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US/08/819,825
 FILING DATE: 18-MAR-1997
 ATTORNEY/AGENT INFORMATION:
 NAME: Lambiris, Elias J.
 REGISTRATION NUMBER: 33,728
 REFERENCE/DOCKET NUMBER: 4758.200-US
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 212 867 0123
 TELEFAX: 212 867 0298
 INFORMATION FOR SEQ. ID NO: 3:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 467 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 US-09-163-642-3

Query Match 76.2%; Score 1875; DB 4; Length 467;
 Best Local Similarity 75.6%; Pred. No. 6.3e-188;
 Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGFEVLLSLATLFGSTGTALGPRGNHSCDTPVGGYOCFPEISHLMGYSPYSLADE 60
 DB 1 MGSAVALLPLYLGLSVTSLGAVPASRNQSSCDTVGQYCFSETSHLMQYAPFSLANE 60
 QY 61 SAISPDVDDCARTFEVYVLSRHGARYPTSSASAKAYSALIEAIOKNATFAFGKATLKTYN 120
 DB 61 SVISPEVAGCARTFAQVLSRHGARYPTDSKGYKYSALIEEIQONATTFEDGKATLKTYN 120
 QY 121 YTLGADLLTPFGENQWNSGKIFRYRKLARKIYVPIRASGSDRYIASNEKFIQFQSA 180
 DB 121 YSLGADLLTPFGEQELVNSGKIFQRYESLIRNIYVPIRSGSSSRVYASGKFFIEGFQST 180
 QY 181 KLADPGSQPHQASPVINVIIPESGYNNTLDHGTCTAFEDSELGDVVEANFATLPAFAPR 240
 DB 181 KKLDPAGQSGSPKIDVVISSEASSNNITLDPGCTCFEDELADTVVEANFATLPAFAPR 240
 QY 241 ARLEADLPVTLTDEVDVYILMDKCPDVTARTSDATELSPCALTFHDEWIOYDLOSIG 300
 DB 241 QRLNDLSGVTLLTDEVTYILMDKCFDTITSTVDTKLSPCDLTFHDEWINYDLOSIG 300
 QY 301 KYTGAGNPLGPAQGVGFANELIARLTHSPVODHTSTNHTLDSNPATFPLNATLYADES 360
 DB 301 KYTGAGNPLGPTQGVGFANELIARLTHSPVHDTSSNHTLDSNPATFPLNATLYADES 360
 QY 361 HDNMTISIFPALGLYNGTRPLSTTVESEIETDGYASATVPFAARAYEMMOCAKEP 420
 DB 361 HDNGIISILFALGLYNGTRPLSTTVEENITQDGFSSAMTVFASRLYVEMMOCAQEGEP 420
 QY 421 LVAVLVNDRVPLHGCVAVDKLGCRKRDVEGLSPARSGGMAECFA 467
 DB 421 LVAVLVNDRVPLHGCVPYDALGRCTRDSFVRGLSPARSGGMAECFA 467

RESULT 12
 US-09-233-510-32

Sequence 32, Application US/09233510
Patent No. 6350602
GENERAL INFORMATION:
APPLICANT: Robert F.M. Van Gorcom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Faridon
APPLICANT: Annemarie E. Veenstra
APPLICANT: Rudolf G.M. Luttin
APPLICANT: Gerardus Selten
TITLE OF INVENTION: Cloning and Expression of Microbial
TITLE OF INVENTION: Phytase
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Morrison & Foerster
STREET: 545 Middlefield Road, Suite 200
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025-3471
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/233,510
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/688,578
FILING DATE: 24-MAY-1991
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026.00
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-327-7250
TELEFAX: 415-327-2951
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-233-510-32

Query Match 76.2%; Score 1875; DB 4; Length 467;
Best Local Similarity 75.6%; Pred. No. 6.3e-188;
Matches 353; Conservative 41; Mismatches 73; Indels 0; Gaps 0;

QY 1 MGVFVYLSTLTGSGTSLALGRGNHSDTDGVCOPPELSHMGTYSPFSLADE 60
DB 1 MGVSAVLLPLVLLSGVTSGLAVPASRNSGSDIVDQIGCFSETSHLMGOYAPFFSLANE 60
QY 61 SAISPDVDDCRVTFVQVYLISHRGARYPTSSASKAYSALIEAIQKNATAFKGAYFLKTYN 120
DB 61 SVISEVYAGCRVTFVQVYLSHRGARYPTDSKGYKYSALIEIQKNATTFDGKAYFLKTYN 120
QY 121 YTLGADLLTPFGEENOMVNSGKIFRRKAKALARKIYPTFRAGSDRYVLSAEKFTLEGFOSA 180
DB 121 YSLGADLLTPFGEELVNSGKIFRRKAKALARKIYPTFRSSGSSRYVLSAGKFTLEGFQST 180
QY 181 KIADGSGPHQASPVINIIPEGSGYNNTLDHGCTAFEDSELDDVDEANFTALFAPAIR 240
DB 181 KIKDPRAGGOSGSPKIDVVISASSNNITDPGCTCTVEDESLADTVANFTAFVVSIR 240
QY 241 ARLEADLPVTLTDEDDVYLLMDMCPFDTVARTSDATELSPFCALFTHDEMIQYDLOSGL 300
DB 241 QRLNDLSGVTLTDEEVYLLMDMCSFDTISTVDTKLSPCDFTHDEWIMYDLOSGLK 300
QY 301 KYTGAGNPLGPAQGVGFANELLRLHSPVDHSTINHLDSNPATFLNATLYADES 360

DB 301 KYTGAGNPLGPAQGVGFANELLRLHSPVHDDSSNHTLDSNPATFLNATLYADES 360
QY 361 HDNMTISIFPALGLYNGTRPLSTVSSEIREDGYSASWTVPAAAYEAMQCOAKEP 420
DB 361 HDNMTISILFALGLYNGTRKPLSTVENIQTGFSASWTVPAAAYEAMQCOAKEP 420
QY 421 LVRLVNDRVVPLHGCYVDKLGRCRDEFGVGLSFAKSGNMAECPA 467
DB 421 LVRLVNDRVVPLHGCYVDKLGRCRDEFGVGLSFAKSGNMAECPA 467

RESULT 13
US-08-668-435-33
Sequence 33, Application US/08668435
Patent No. 6291221
GENERAL INFORMATION:
APPLICANT: Van Loon, Adolphus
APPLICANT: Mitchell, David
TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Hoffmann-La Roche Inc.
STREET: 340 Kingsland Street
CITY: Nutley
STATE: New Jersey
COUNTRY: United States of America
ZIP: 07110
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/668,435
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/744,231
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Kass, Alan P
REGISTRATION NUMBER: 32142
REFERENCE/DOCKET NUMBER: Case Docket 9339
TELECOMMUNICATION INFORMATION:
TELEPHONE: (201) 235-4205
TELEFAX: (201) 235-2363
INFORMATION FOR SEQ ID NO: 33:
SEQUENCE CHARACTERISTICS:
LENGTH: 465 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: misc_feature
LOCATION: 104
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 119
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 205
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 228
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 337
OTHER INFORMATION: /note="potential N-glycosylation site"

FEATURE:
NAME/KEY: misc_feature
LOCATION: 374
OTHER INFORMATION: /note="potential N-glycosylation site"
US-08-868-435-33

Query Match 75.8%; Score 1867; DB 4; Length 465;
Best Local Similarity 76.0%; Pred. No. 4.3e-187;
Matches 355; Conservative 36; Mismatches 74; Indels 2; Gaps 2;

QY 1 MGVEVLLSTITLFGSTSGTALGRGNSHCDYDGYQCPPELSHLMGYSPYFSLADE 60
DB 1 MVTLLFLSLAAYLLSGRVSAPSSAG-SKSCDYLDLGYQSPATSHLMGYSPYFSLEDE 59
QY 61 SAISPDVDDCRVTEFVYLSRHGARYPTSSASKAYSALEIAOKNATAFGKAFLEKTYN 120
DB 60 LVSASKLPKDCRITLVQVLSRHGARYPTSSASKAYSKKLVYALQANATDFGKAFLEKTYN 119
QY 121 YTLGADLLTPGEGNOMVNSGKIFRYRKALARKVTPPIRASGSDRYTASAEKIEGFQSA 180
DB 120 YTLGADLLTPGEGNOMVNSGKIFRYRKALARKVTPPIRASGSDRYTASAEKIEGFQSA 179
QY 181 KLADPGSOPHASPVIWIIPEGSGYNNLTLDHGTCTAFEDSELDGVYANFTALFAPAIR 240
DB 180 KLADPGA-TNRAAPALISVIIPESETFNNTLDHGTCTAFEDSELDGVYANFTALFAPDIR 238
QY 241 ARLEADLPVTLDEDDVYVYLMDCPEPTVARTSDATELSPFCLFTHDEMIOYDYLOSIG 300
DB 239 ARAEKHLPGVTLDEDDVYVYLMDCPEPTVARTSDATELSPFCLFTHDEMIOYDYLOSIG 298
QY 301 KYGYGAGNPLGPAQGVGFANELLARLTHSPVODHTSTNTLDSNPATPLNATLYADS 360
DB 299 KYGYGAGNPLGPAQGVGFANELLARLTHSPVODHTSTNTLDSNPATPLNATLYADS 358
QY 361 HDNMTSIFPALGLYNGTKPLSTTSVESIEBTDGYSASWVPPARAAYEMQCAKEKP 420
DB 359 HDNMTSIFPALGLYNGTKPLSTTSVESIEBTDGYSASWVPPARAAYEMQCAKEKP 418
QY 421 LVRVLVNDVRVPLHGCAVNDKLGRCRDEVEGLSFARSGGNAECFA 467
DB 419 LVRVLVNDVRVPLHGCDVDKLGRCRKLNDFFVKGISLWASRGNGMECS 465

RESULT 14
US-08-744-231-33
Sequence 33, Application US/08744231
Patent No. 6358722
GENERAL INFORMATION:
APPLICANT: Van Loon, Adolphus
APPLICANT: Mitchell, David
TITLE OF INVENTION: POLYPEPTIDES WITH PHYLASE ACTIVITY
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hoffmann-La Roche Inc.
STREET: 340 Kingsland Street
CITY: Nutley
STATE: New Jersey
COUNTRY: United States of America
ZIP: 07110
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/744,231
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/424,757
FILING DATE: 18-APR-1995
ATTORNEY/AGENT INFORMATION:

NAME: KASS, Alan P
REGISTRATION NUMBER: 32142
REFERENCE/DOCKET NUMBER: Case Docket 9339
TELECOMMUNICATION INFORMATION:
TELEPHONE: (201) 235-4205
TELEFAX: (201) 235-2363
INFORMATION FOR SEQ ID NO: 33:
SEQUENCE CHARACTERISTICS:
LENGTH: 465 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: misc_feature
LOCATION: 104
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 119
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 205
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 228
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 337
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc_feature
LOCATION: 374
OTHER INFORMATION: /note="potential N-glycosylation site"
US-08-744-231-33

Query Match 75.8%; Score 1867; DB 4; Length 465;
Best Local Similarity 76.0%; Pred. No. 4.3e-187;
Matches 355; Conservative 36; Mismatches 74; Indels 2; Gaps 2;

QY 1 MGVEVLLSTITLFGSTSGTALGRGNSHCDYDGYQCPPELSHLMGYSPYFSLADE 60
DB 1 MVTLLFLSLAAYLLSGRVSAPSSAG-SKSCDYLDLGYQSPATSHLMGYSPYFSLEDE 59
QY 61 SAISPDVDDCRVTEFVYLSRHGARYPTSSASKAYSALEIAOKNATAFGKAFLEKTYN 120
DB 60 LVSASKLPKDCRITLVQVLSRHGARYPTSSASKAYSKKLVYALQANATDFGKAFLEKTYN 119
QY 121 YTLGADLLTPGEGNOMVNSGKIFRYRKALARKVTPPIRASGSDRYTASAEKIEGFQSA 180
DB 120 YTLGADLLTPGEGNOMVNSGKIFRYRKALARKVTPPIRASGSDRYTASAEKIEGFQSA 179
QY 181 KLADPGSOPHASPVIWIIPEGSGYNNLTLDHGTCTAFEDSELDGVYANFTALFAPAIR 240
DB 180 KLADPGA-TNRAAPALISVIIPESETFNNTLDHGTCTAFEDSELDGVYANFTALFAPDIR 238
QY 241 ARLEADLPVTLDEDDVYVYLMDCPEPTVARTSDATELSPFCLFTHDEMIOYDYLOSIG 300
DB 239 ARAEKHLPGVTLDEDDVYVYLMDCPEPTVARTSDATELSPFCLFTHDEMIOYDYLOSIG 298
QY 301 KYGYGAGNPLGPAQGVGFANELLARLTHSPVODHTSTNTLDSNPATPLNATLYADS 360
DB 299 KYGYGAGNPLGPAQGVGFANELLARLTHSPVODHTSTNTLDSNPATPLNATLYADS 358
QY 361 HDNMTSIFPALGLYNGTKPLSTTSVESIEBTDGYSASWVPPARAAYEMQCAKEKP 420
DB 359 HDNMTSIFPALGLYNGTKPLSTTSVESIEBTDGYSASWVPPARAAYEMQCAKEKP 418
QY 421 LVRVLVNDVRVPLHGCAVNDKLGRCRDEVEGLSFARSGGNAECFA 467
DB 419 LVRVLVNDVRVPLHGCDVDKLGRCRKLNDFFVKGISLWASRGNGMECS 465

Db 419 LVRALINDRVPLHGCCVDKLGRCCKLNDPVLKGLSMARSGGNMGECFS 465

RESULT 15

US-09-155-855-3
 ; Sequence 3, Application US/09155855
 ; Patent No. 6139902
 ; GENERAL INFORMATION:
 ; APPLICANT: KONDO, Hidemasa
 ; APPLICANT: ANAZAWA, Hideharu
 ; APPLICANT: KANEKO, Syunichi
 ; APPLICANT: NAGASHIMA, Tadashi
 ; APPLICANT: TANGE, Tatsuya
 ; TITLE OF INVENTION: NOVEL PHYTASE AND GENE ENCODING SAID PHYTASE
 ; FILE REFERENCE: 81356/124
 ; CURRENT APPLICATION NUMBER: US/09/155,855
 ; CURRENT FILING DATE: 1998-10-05
 ; EARLIER APPLICATION NUMBER: WO PCT/JP97/01175
 ; EARLIER FILING DATE: 1997-04-04
 ; EARLIER APPLICATION NUMBER: JP 084314
 ; NUMBER OF SEQ ID NOS: 7
 ; SOFTWARE: Patent Ver. 2.0
 ; SEQ ID NO 3
 ; LENGTH: 467
 ; TYPE: PRT
 ; ORGANISM: Aspergillus niger
 US-09-155-855-3

Query Match 75.5%; Score 1860; DB 4; Length 467;
 Best Local Similarity 74.1%; Pred. No. 2.4e-186;
 Matches 346; Conservative 48; Mismatches 73; Indels 0; Gaps 0;

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 OY 301 KYGYGAGNPLGPAQGVGFANELIARLTHSPYQDHTSTNHTLDSNPATFPPLNATLYADS 360
 DB 301 KYGHGAGNPLGPTQGVGFANELIARLTHSPVHDTSSNHTLDSNPATFPPLNSTLYADS 360
 OY 361 HDNTMTSIFPALGLNGTVPPLSTTSVESIEETDYSASWTVPFARAYVEMQCAEKEP 420
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Search completed: July 3, 2002, 09:33:14
 Job time: 153 sec

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seq_documentation_block:
; Sequence 2, Application US/09121425
; Patent No. 6153418
; GENERAL INFORMATION:
; APPLICANT: Lehmann, Martin
; TITLE OF INVENTION: Consensus Phytases
; FILE REFERENCE: consensus phytases 13239
; CURRENT APPLICATION NUMBER: US/09/121,425
; EARLIER FILING DATE: 1998-07-23
; EARLIER APPLICATION NUMBER: EPO 97112688.3
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 467
; TYPE: prt
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: consensus
US-09-121-425-2

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  ratio: 5.000          gaps: 2
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? Sequence 33, Application US/08868435
? Patent No. 6291221
? GENERAL INFORMATION:
? APPLICANT: Van Loon, Adolphus
? TITLE OF INVENTION: POLYPEPTIDES WITH PHYLASE ACTIVITY
? NUMBER OF SEQUENCES: 35
? CORRESPONDENCE ADDRESS:
? ADDRESSEE: Hoffmann-La Roche Inc.
? STREET: 340 Kingsland Street
? CITY: Nutley
? STATE: New Jersey
? COUNTRY: United States of America
? ZIP: 07110
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Floppy disk
? COMPUTER: IBM PC compatible
? OPERATING SYSTEM: PC-DOS/MS-DOS
? SOFTWARE: PatentIn Release #1.0, Version #1.25
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: US/08/868,435
? FILING DATE:
? CLASSIFICATION:
? PRIOR APPLICATION DATA:
? APPLICATION NUMBER: 08/744,231
? FILING DATE:
? ATTORNEY/AGENT INFORMATION:
? NAME: Kass, Alan P
? REGISTRATION NUMBER: 32142
? REFERENCE/DOCKET NUMBER: Case Docket 9339
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: (201) 235-2363
? TELEFAX: (201) 235-2363
? INFORMATION FOR SEQ ID NO: 33:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 465 amino acids
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? MOLECULE TYPE: protein
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US-08-868-435-33

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; Patent No. 6358722
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESS: Hoffmann-La Roche Inc.

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; Sequence 8, Application US/07923724
; Patent No. 5780292
; GENERAL INFORMATION:
; APPLICANT: Nevalainen, Helena K.M.
; APPLICANT: Paloheimo, Maria T.
; APPLICANT: Miettinen-Oinonen, Arja S.K.
; APPLICANT: Torkkeli, Tuula K.
; APPLICANT: Cantrell, Michael
; APPLICANT: Piddington, Christopher S.
; APPLICANT: Rambosek, John A.
; APPLICANT: Turunen, Marja K.
; APPLICANT: Fagerstr m, Richard B.
; TITLE OF INVENTION: Production of Phytase Degrading Enzymes
; NUMBER OF SEQUENCES: 66
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox
; ADDRESS: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/923,724
; FILING DATE: 31-JUL-1992
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155

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; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: UK 8610600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: Cimballa, Michele A.
; REGISTRATION NUMBER: 33,851
; REFERENCE/DOCKET NUMBER: 1050,0240004
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2540
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-07-923-724-8

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alignment_scores:
quality: 1852.00      length: 467
ratio: 4.452          gaps: 0
Percent Similarity: 89.079      Percent Identity: 74.304

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Align seq 1/1 to: US-07-923-724-8 from: 1 to: 467

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; Sequence 8, Application US/08609426A
; Patent No. 5830733
; GENERAL INFORMATION:
; APPLICANT: Nevalainen, Helena K.M.
; APPLICANT: Paloheimo, Marja T.
; APPLICANT: Miettinen-Oinonen, Arja S.K.
; APPLICANT: Torkkeli, Tuula K.
; APPLICANT: Cantrell, Michael
; APPLICANT: Piddington, Christopher S.
; APPLICANT: Rambosek, John A.
; APPLICANT: Turunen, Marja K.
; APPLICANT: Fagerstr m, Richard B.
; APPLICANT: Houston, Christine S.
; TITLE OF INVENTION: Production of Phytase Degrading Enzymes
; TITLE OF INVENTION: In Trichoderma
; NUMBER OF SEQUENCES: 69
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein & Fox
; STREET: 1100 New York Avenue, Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/609,426A
; FILING DATE: 01-MAR-1996
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/923,724
; FILING DATE: 31-JUL-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/496,155
; FILING DATE: 19-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/044,077
; FILING DATE: 29-APR-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: UK 8610600
; FILING DATE: 30-APR-1986
; ATTORNEY/AGENT INFORMATION:
; NAME: Reed, Grant E.
; REGISTRATION NUMBER: P-41,264
; REFERENCE/DOCKET NUMBER: 1050.0080001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2540
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-609-426A-8

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Quality: 1852.00      Length: 467
Ratio: 4.452          Gaps: 0
Percent Similarity: 89.079      Percent Identity: 74.304

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alignment_block:

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Sequence 2, Application US/08374652C

Patent No. 5834286

GENERAL INFORMATION:

APPLICANT: NEVALAINEN, HELENA K. M.

APPLICANT: PALOHEIMO, MARIA T.

APPLICANT: FAGERSTROM, RICHARD B.

APPLICANT: MIETTINEN-OJONEN, ARJA S.

APPLICANT: TURUNEN, MARIA K.

APPLICANT: RAMBOSEK, JOHN A.

APPLICANT: PIDDINGTON, CHRISTOPHER S.

APPLICANT: HOUSTON, CHRISTINE S.

APPLICANT: CANTRELL, MICHAEL A.

TITLE OF INVENTION: RECOMBINANT CELLS, DNA CONSTRUCTS, VECTORS AND METHODS FOR EXPRESSING PHYTATE DEGRADING ENZYMES IN DESIRED RATIOS

TITLE OF INVENTION: 94

NUMBER OF SEQUENCES: 94

CORRESPONDENCE ADDRESS:

ADDRESSEE: STERNER, KESSLER, GOLDSTEIN & FOX P.L.L.C.

STREET: 1100 NEW YORK AVENUE, SUITE 600

CITY: WASHINGTON

STATE: DC

COUNTRY: USA

ZIP: 20005

COMPUTER READABLE FORM:


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67 lProAlaGlyCysArgYrAlaThrPheAlaGlnValLeuSerArgHisIleYA 84
251 CTGATATCCCACTCTTCTGCGCTTAAGGCGTACTCTGCTTGATTGAA 300
84 lalaGlyrProIthrAspSerLeysGlyIysLysTySerAlaLeuIleGln 100
301 GCATTTCAAAAGAACCGTACTGCTTTCACAGGGTAATGACTTCTTGAA 350
101 GlnIleGlnIAsnAlaThrIthrPheAspGlyLysrTYrAlaHeuIy 117
351 GACTTACACTACACTTGTGGGCTGACGACTTGACTCCATTGCGTGAAC 400
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701 TTTTGGCTCCACCAATTAGAGTAGATTGGAAGCTCACTTCCAGGTTGT 750
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751 AACTGAGCTGACGAGAGAGCTGTTGAATGATGACATGTGTCATGCA 800
251 ThrLeuThrAspThrGluValAlaThrIleuMetIleAspMetCysSerPheAs 267
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? Sequence 2, Application US/08693709
? Patent No. 5770413
? GENERAL INFORMATION:
? APPLICANT: VAN OOTJEN, ALBERT J.J.
? APPLICANT: RIETVELD, KRJUN
? APPLICANT: HOEKEMA, ANDREAS
? APPLICANT: PEN, JAN
? APPLICANT: SIMONS, PETER C.
? APPLICANT: VERWOERD, TEUNIS C.
? TITLE OF INVENTION: THE EXPRESSION OF PHYLASE
? NUMBER OF SEQUENCES: 28
? CORRESPONDENCE ADDRESS:
? ADDRESS: MORRISON & FOERSTER
? STREET: 755 PAGE MILL ROAD
? CITY: Palo Alto
? STATE: CA
? COUNTRY: USA
? ZIP: 94304-1018
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Diskette
? COMPUTER: IBM Compatible
? OPERATING SYSTEM: DOS
? SOFTWARE: FASTSEQ for Windows Version 2.0
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: US/08/693,709
? FILING DATE: 07-AUG-1996
? CLASSIFICATION: 800
? PRIOR APPLICATION DATA:
? APPLICATION NUMBER: 08/146,424
? FILING DATE: 02-NOV-1993
? ATTORNEY/AGENT INFORMATION:
? NAME: Murashige, Kate H
? REGISTRATION NUMBER: 29,959
? REFERENCE/DOCKET NUMBER: 24615-20011.10
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: 415-813-5600
? TELEFAX: 415-494-0792
? TELEX: 706141
? INFORMATION FOR SEQ ID NO: 2:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 467 amino acids
? TYPE: amino acid
? STRANDEDNESS: single
? TOPOLOGY: linear
? MOLECULE TYPE: protein
? FRAGMENT TYPE: internal
? FEATURE:
? NAME/KEY: Signal Sequence
? LOCATION: 1...23
? OTHER INFORMATION:
? US-08-693-709-2

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? Quality: 1848.00 Length: 467
? Ratio: 4.432 Gaps: 0
? Percent Similarity: 89.293 Percent Identity: 74.304

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134  lngluLeuValasnSerGlyIleLysPheTyGlnArgTyLeuSerLeu 150
451  GCTAGAAAGATTGTTCCATTCATTAGACTTCTGCTGACAGATAT 500
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601  CCAGAAGTGGCTGTTACACACACTTTGGACACAGGTTTGTGTACTGC 650
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651  TTTTCGAAAGATCTGAATGGGTGACGACGCTGAGCTAACTTCACTGCTG 700
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701  TTTTCGCTCCACCAATTAGAGCTAGATTGGAAGCTTCCAGGTGTT 750
234  hrPheValPProSerIleArgGlnArgLeuGluAsnAspLeuSerGlyAl 250
751  AACTTGACTGACGAAGAGCTTGTAACTTGATGGACATGTGTCCATTCGA 800
251  ThrLeuThrAspThrGluValThrTyLeuMetAspMetCysSerPheAs 267
801  CACTGTGCTAGAACTTCTGACGCTACTCAATTGCTTCCATTCTGAGT 850
267  pThrIleSerThrSerThrValAspThrIryLysLeuSerProPheCysAsp 284
851  TGTTCACCTACGACGAGATGGATTCAATAGACTACTTGAATCTTTGGT 900
284  eupHeThrHisAspGluTrpIleAsnTyIraspTyLeuGlnSerLeuLys 300
901  AAGTACTACGAGTTACGCTGGTGAACCATGGTGGTCCACTCAAGTGT 950
301  LysTyIryLeuGlnAspGlyAlaGlyAsnProLeuGlyProThrInGlyVa 317
951  TGGTTTGGTTAAGCAATTGATTGCTAGATTGACTACTCCAGTTCAAG 1000
317  lGlyTyAlaAsnGluLeuIleAlaArgLeuThrHisSerProValHisA 334
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1101  TATTTCTCCCTTTGGTGTGTACAAAGCTACTTAACCATTTGTCTACTA 1150
367  rIleLeuPheAlaLeuGlyLeuTyAsnGlyThrLysProLeuSerThr 384
1151  CTCTGTTGAATCTATTGAAGAACTGACGGTAACTCTGCTTCTGACT 1200
384  hrThrValGluAsnIleThrGlnThrAspGlyPheSerSerAlaTrpThr 400
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seq_name: /cgn2.6/ptodata/2/iaa/5B-COMB.pep:US-08-419-448-32
seq_documentation_block:
; Sequence 32, Application US/08419448
; Patent No. 5863533
; GENERAL INFORMATION:
; APPLICANT: Robert F.M. Van Gorcom
; APPLICANT: Willem Van Hartingsveldt
; APPLICANT: Petrus A. Van Paridon
; APPLICANT: Annemarie E. Veenstra
; APPLICANT: Rudolf G.M. Luttin
; APPLICANT: Gerardus Sellen
; TITLE OF INVENTION: Cloning and Expression of Microbial
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Morrison & Foerster
; STREET: 2000 Pennsylvania Ave. N.W., Suite 5500
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/419,448
; FILING DATE: 10-APR-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H.
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 24615-20026.10
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; INFORMATION FOR SEQ ID NO: 32:

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CORRESPONDENCE ADDRESS:

ADDRESSEE: No. 58661180 No. 58661180isk of No. 5866118th America, Inc.
 STREET: 405 Lexington Avenue, Suite 6400
 CITY: New York
 STATE: New York
 COUNTRY: U.S.A.
 ZIP: 10174-6401
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Diskette
 OPERATING SYSTEM: DOS
 SOFTWARE: FastSeq for Windows Version 2.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/819,825
 FILING DATE: 18-MAR-1997
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: Lambiris, Elias J.
 REGISTRATION NUMBER: 33,728
 REFERENCE/DOCKET NUMBER: 4758.200-US
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 212 867 0123
 TELEFAX: 212 867 0298
 INFORMATION FOR SEQ ID NO: 3:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 467 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 US-08-819-825-3

alignment_scores:

Quality: 1848.00 Length: 467
 Ratio: 4.432 Gaps: 0
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1201 GTTCATTCGCTGCTAGAGCTTACGTTGAATGATGCAATGTGAAGCTGA 1250
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1251 AAAGAACCATTTGGTGAAGTTTGGTTAAAGACAGAGGTTGCCATTCG 1300
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351 LeuHisSerThrLeuThrAlaAspHisSerHisAspAsnGlyIleIleSe 367
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367 rIleLeuPheAlaLeuGlyLeuThrAsnGlyThrIlySerProLeuSerThr 384
1151 CTTCGTGTAATCTATTTGAAGAACTGACGCTTACTGCTGCTTGGAGCT 1200
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/ Patent No. 6350602
/ GENERAL INFORMATION:
/ APPLICANT: Robert F.M. Van Gorcom
/ APPLICANT: Willem Van Hartingsveldt
/ APPLICANT: Petrus A. Van Paridon
/ APPLICANT: Annemarie E. Veenstra
/ APPLICANT: Rudolf G.M. Luitlin
/ TITLE OF INVENTION: Cloning and Expression of Microbial
/ NUMBER OF SEQUENCES: 52
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Morrison & Foerster
/ STREET: 345 Middlefield Road, suite 200
/ CITY: Menlo Park
/ STATE: California
/ COUNTRY: USA
/ ZIP: 94025-3471
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: Patent Release #1.0, Version #1.25
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/09/233,510
/ FILING DATE:
/ CLASSIFICATION:
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 07/688,578

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FILING DATE: 24-MAY-1991
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026.00
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-327-7250
TELEFAX: 415-327-2951
/ INFORMATION FOR SEQ ID NO: 32:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 467 amino acids
/ TYPE: amino acid
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
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Quality: 1848.00 Length: 467
Ratio: 4.432 Gaps: 0
Percent Similarity: 89.293 Percent Identity: 74.304

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Align seg 1/1 to: US-09-233-510-32 from: 1 to: 467

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401 AACAAATGTTAACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 450
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; Patent No. 6139902
; GENERAL INFORMATION:
; APPLICANT: KONDO, Hidemasa
; APPLICANT: ANAZAWA, Hideharu
; APPLICANT: KANEKO, Syunichi
; APPLICANT: NAGASHIMA, Tadashi
; APPLICANT: TANGE, Tatsuya
; TITLE OF INVENTION: NOVEL PHYTASE AND GENE ENCODING SAID PHYTASE
; FILE REFERENCE: 81356/124
; CURRENT APPLICATION NUMBER: US/09/155,855
; EARLIER FILING DATE: 1998-10-05
; EARLIER APPLICATION NUMBER: WO PCT/JP97/01175
; EARLIER FILING DATE: 1997-04-04
; EARLIER APPLICATION NUMBER: JP 084314
; EARLIER FILING DATE: 1996-04-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Patentln Ver. 2.0
; SEQ ID NO: 3
; LENGTH: 467
; TYPE: PRT
; ORGANISM: Aspergillus niger
; US-09-155-855-3

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1401 T 1401
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Mon Jul 8 08:27:59 2002

us-09-488-265-30.n2p.ra1

Page 20

GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 3, 2002, 09:33:14 ; Search time 39.56 Seconds
(Without alignments) 288.341 Million cell updates/sec

Title: US-09-488-265-31

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Gapop 10.0 , Gapext 0.5

Searched: 231628 seqs, 24425594 residues

Total number of hits satisfying chosen parameters: 231628

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	2170	87.9	467 4	US-09-121-425-2 Sequence 2, Appli
3	1888	76.5	465 4	US-08-868-435-33 Sequence 33, Appli
4	1888	76.5	465 4	US-08-744-231-33 Sequence 33, Appli
5	1852	75.0	467 1	US-07-923-724-8 Sequence 8, Appli
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7	1848	74.9	467 1	US-08-374-652C-2 Sequence 32, Appli
8	1848	74.9	467 1	US-08-151-574-32 Sequence 32, Appli
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16	1841	74.6	467 4	US-09-543-744-3 Sequence 3, Appli
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ALIGNMENTS

RESULT 1
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Sequence 1, Application US/09121425
Patent No. 6153418
GENERAL INFORMATION:
APPLICANT: Lehmann, Martin
TITLE OF INVENTION: Consensus Phytases
FILE REFERENCE: Consensus phytases 13239
CURRENT APPLICATION NUMBER: US/09/121,425
CURRENT FILING DATE: 1998-07-23
EARLIER APPLICATION NUMBER: EPO 97112688.3
EARLIER FILING DATE: 1997-07-24
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1
LENGTH: 441
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:consensus
US-09-121-425-1

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Best Local Similarity 93.0%; Pred. No. 6.6e-217;
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DB 61 PTSSASAKVSALEIAIOKNATFAFGKAYFLKTYNTLTGADLPPFGQOQVNSGICFYRR 120
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RESULT 2
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; Patent No. 6153418
; GENERAL INFORMATION:
; APPLICANT: Lehmann, Martin
; TITLE OF INVENTION: Consensus phytases
; FILE REFERENCE: consensus phytases 13239
; CURRENT APPLICATION NUMBER: US/09/121,425
; CURRENT FILING DATE: 1998-07-23
; EARLIER APPLICATION NUMBER: EPO 97112688.3
; EARLIER FILING DATE: 1997-07-24
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patentln Ver. 2.0
; SEQ ID NO 2
; LENGTH: 467
; TYPE: PRT
; ORGANISM: Artificial Sequence
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US-09-121-425-2

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OY      61 SAISPDVKKGRVFFVQYLSRHGARYPTSSASKAYSALEIAIQKNATAFKGYAFLKTYN 120
Db      61 SAISPDVKKGRVFFVQYLSRHGARYPTSSASKAYSALEIAIQKNATAFKGYAFLKTYN 120
OY      121 YTLGADDLTPFGEOQMVNSGKIFRYRRYKALARKIVPFIIRASGSDRYTASAEFTGFSQA 180
Db      121 YTLGADDLTPFGEOQMVNSGKIFRYRRYKALARKIVPFIIRASGSDRYTASAEFTGFSQA 180
OY      101 YTLGADDLTPFGEOQMVNSGKIFRYRRYKALARKIVPFIIRASGSDRYTASAEFTGFSQA 160
Db      101 YTLGADDLTPFGEOQMVNSGKIFRYRRYKALARKIVPFIIRASGSDRYTASAEFTGFSQA 160
OY      181 KLADPGANHOASPVIN-----YIIEGAGYNNITDHGICTAFEE 220
Db      181 KLADPGANHOASPVIN-----YIIEGAGYNNITDHGICTAFEE 220
OY      161 KLADPGSQPHQSPVIDLIEAIQKNATAFKGYAFLKTYNIIPEGSGYNNITDHGICTAFED 220
Db      161 KLADPGSQPHQSPVIDLIEAIQKNATAFKGYAFLKTYNIIPEGSGYNNITDHGICTAFED 220
OY      221 SELGDVEANFTAFAPPIRARLEAHLPGVNLTDDEVNLMDCPFPTVARTSDATQISP 280
Db      221 SELGDVEANFTAFAPPIRARLEAHLPGVNLTDDEVNLMDCPFPTVARTSDATQISP 280
OY      281 FCDLFTHDEMIQDYLOSIGKYYGYGAGNPLGPAQGVGFVNELIARLTHSPVODHTSNH 340
Db      281 FCDLFTHDEMIQDYLOSIGKYYGYGAGNPLGPAQGVGFVNELIARLTHSPVODHTSNH 340
OY      341 TLDSPNATPLNATLADFSHDNSMISIFPALGLYNGTAPLSTTSVSEIETDGTASWY 400
Db      341 TLDSPNATPLNATLADFSHDNSMISIFPALGLYNGTAPLSTTSVSEIETDGTASWY 400
OY      401 VPPAARAVEMMOCEAEKEPELVRLVNDRVVPLHGGVDKGRCKRDFVEGLSFARSGG 460
Db      401 VPPAARAVEMMOCEAEKEPELVRLVNDRVVPLHGGVDKGRCKRDFVEGLSFARSGG 460
OY      461 NMEECEFA 467
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Db      461 NMEECEFA 467

RESULT 3
US-08-868-435-33
; Sequence 33, Application US/08868435
; Patent No. 6291221
; GENERAL INFORMATION:
; APPLICANT: Van Loon, Adolphus
; APPLICANT: Mitchell, David
; TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: United States of America
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentln Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/868,435
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/744,231
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kaas, Alan P
; REGISTRATION NUMBER: 32142
; REFERENCE/DOCKET NUMBER: Case Docket 9339
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-4205
; TELEFAX: (201) 235-2363
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 465 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 104
; OTHER INFORMATION: /note="potential N-glycosylation site"
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 119
; OTHER INFORMATION: /note="potential N-glycosylation site"
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 205
; OTHER INFORMATION: /note="potential N-glycosylation site"
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 228
; OTHER INFORMATION: /note="potential N-glycosylation site"
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 337
; OTHER INFORMATION: /note="potential N-glycosylation site"
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 374
; OTHER INFORMATION: /note="potential N-glycosylation site"
US-08-868-435-33

Query Match 76.5%; Score 1888; DB 4; Length 465;
Best Local Similarity 76.9%; Pred. No. 1.7e-186;

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Matches 359; Conservative 35; Mismatches 71; Indels 2; Gaps 2;

QY 1 MGVEVLLIATLFGSTGALGRGNSHSCDVTVDGGYOCPELSHMGYSPFSLADE 60
1 MVTLLFLLSAAYLLSGRVSAAPSAG-SKSCDVTVDLQCSPATSHMGYSPEFSLADE 59
61 SAISPDVPGKGRVTFVYVLSRHGARYPTSSAKRAYSALIAIOKNATFAKGYAFLKTYN 120
60 LSVSSKLPKDCRTLLVQLSRHGARYPTSSSKRYKLVTAIOANATDFGKFAFLKTYN 119
QY 121 YTLGADLTFPGEQOQVNSGKIFRRYKALARKIVPEIRASGSDRYIASAEKITEGFOQA 180
120 YTLGADLTFPGEQOQVNSGKIFRRYKALARKIVPEIRASGSDRYIASAEKITEGFOQA 179
QY 181 KLADPGANPHQASPVINVIIPGAGYNNTLDHGLCTAFEESELDGDEVANFTAVFAPPIR 240
180 KLADPGAT-NRAAPALISVIIPESETEFNNTLDHGVCCKFEASQDGEVANFTALFAPDIR 238
QY 241 ARLEAHLPGVNLDEDEVNLMDCPFDYARTSDATQSLPFCDLPTHDEWIOYDYLQSLG 300
239 ARAEKHLPGVTLTDEDEVNLMDCSPFDYARTSDASQSLPFCOLFTHNEMKKYNYLQSLG 298
QY 301 KYTGYAGNPLGPAQGVGVNELLARLTHSPVQDHTSTNHTLDSNPAEPPLNATLYADES 360
299 KYTGYAGNPLGPAQGVGVNELLARLTHSPVQDHTSTNHTLDSNPAEPPLNATLYADES 358
QY 361 HNTWVSIFPAGLNGTSPKPLSTSVESIEETDGSASWTVPFAARAYEMOCEAEKEP 420
359 HNSWSIIFPAGLNGTSPKPLSTSVESIEETDGSASWTVPFAARAYEMOCEAEKEP 418
QY 421 LVRLVINDRVVPLHGGCVDKLGRCKRDPFVEGLSFARSGGWMGECF 467
419 LVRLVINDRVVPLHGGCVDKLGRCKLNDPVKGLSMARSGGWMGECFS 465

RESULT 4
US-08-744-231-33
Sequence 33, Application US/08744231
Patent No. 6358722
GENERAL INFORMATION:
APPLICANT: Van Loon, Adolphus
APPLICANT: Mitchell, David
TITLE OF INVENTION: POLYPEPTIDES WITH PHYTASE ACTIVITY
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Hoffmann-La Roche Inc.
STREET: 340 Kingsland Street
CITY: Nutley
STATE: New Jersey
COUNTRY: United States of America
ZIP: 07110
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/744,231
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/424,757
FILING DATE: 18-APR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Kass, Alan P
REGISTRATION NUMBER: 32142
REFERENCE/DOCKET NUMBER: Case Docket 9339
TELECOMMUNICATION INFORMATION:
TELEPHONE: (201) 235-4205
TELEFAX: (201) 235-2363
INFORMATION FOR SEQ ID NO: 33:
SEQUENCE CHARACTERISTICS:
LENGTH: 465 amino acids

TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: misc-feature
LOCATION: 104
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc-feature
LOCATION: 119
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc-feature
LOCATION: 205
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc-feature
LOCATION: 228
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc-feature
LOCATION: 337
OTHER INFORMATION: /note="potential N-glycosylation site"
FEATURE:
NAME/KEY: misc-feature
LOCATION: 374
OTHER INFORMATION: /note="potential N-glycosylation site"
US-08-744-231-33

Query Match 76.5%; Score 1888; DB 4; Length 465;
Best Local Similarity 76.9%; Pred. No. 1.7e-186;
Matches 359; Conservative 35; Mismatches 71; Indels 2; Gaps 2;

QY 1 MGVEVLLIATLFGSTGALGRGNSHSCDVTVDGGYOCPELSHMGYSPFSLADE 60
1 MVTLLFLLSAAYLLSGRVSAAPSAG-SKSCDVTVDLQCSPATSHMGYSPEFSLADE 59
61 SAISPDVPGKGRVTFVYVLSRHGARYPTSSAKRAYSALIAIOKNATFAKGYAFLKTYN 120
60 LSVSSKLPKDCRTLLVQLSRHGARYPTSSSKRYKLVTAIOANATDFGKFAFLKTYN 119
QY 121 YTLGADLTFPGEQOQVNSGKIFRRYKALARKIVPEIRASGSDRYIASAEKITEGFOQA 180
120 YTLGADLTFPGEQOQVNSGKIFRRYKALARKIVPEIRASGSDRYIASAEKITEGFOQA 179
QY 181 KLADPGANPHQASPVINVIIPGAGYNNTLDHGLCTAFEESELDGDEVANFTAVFAPPIR 240
180 KLADPGAT-NRAAPALISVIIPESETEFNNTLDHGVCCKFEASQDGEVANFTALFAPDIR 238
QY 241 ARLEAHLPGVNLDEDEVNLMDCPFDYARTSDATQSLPFCDLPTHDEWIOYDYLQSLG 300
239 ARAEKHLPGVTLTDEDEVNLMDCSPFDYARTSDASQSLPFCOLFTHNEMKKYNYLQSLG 298
QY 301 KYTGYAGNPLGPAQGVGVNELLARLTHSPVQDHTSTNHTLDSNPAEPPLNATLYADES 360
299 KYTGYAGNPLGPAQGVGVNELLARLTHSPVQDHTSTNHTLDSNPAEPPLNATLYADES 358
QY 361 HNTWVSIFPAGLNGTSPKPLSTSVESIEETDGSASWTVPFAARAYEMOCEAEKEP 420
359 HNSWSIIFPAGLNGTSPKPLSTSVESIEETDGSASWTVPFAARAYEMOCEAEKEP 418
QY 421 LVRLVINDRVVPLHGGCVDKLGRCKRDPFVEGLSFARSGGWMGECF 467
419 LVRLVINDRVVPLHGGCVDKLGRCKLNDPVKGLSMARSGGWMGECFS 465

RESULT 5
US-07-923-724-8
Sequence 8, Application US/07923724
Patent No. 5780292
GENERAL INFORMATION:
APPLICANT: Nevalainen, Helena K.M.

APPLICANT: Paloheimo, Marja T.
APPLICANT: Miettinen-Oinonen, Arja S.K.
APPLICANT: Torkkeli, Tuula K.
APPLICANT: Cantrell, Michael
APPLICANT: Piddington, Christopher S.
APPLICANT: Rambosek, John A.
APPLICANT: Turunen, Marja K.
APPLICANT: Fagerstr m, Richard B.
TITLE OF INVENTION: Production of phytase degrading Enzymes
TITLE OF INVENTION: in Trichoderma
NUMBER OF SEQUENCES: 66
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox
STREET: 1100 New York Avenue, Suite 600
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/923,724
FILING DATE: 31-JUL-1992
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/496,155
FILING DATE: 19-MAR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/044,077
FILING DATE: 29-APR-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: UK 8610600
FILING DATE: 30-APR-1986
ATTORNEY/AGENT INFORMATION:
NAME: Cimdala, Michele A.
REGISTRATION NUMBER: 33,851
REFERENCE/DOCKET NUMBER: 1050, 0240004
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-07-923-724-8

Query Match 75.0%; Score 1852; DB 1; Length 467;
Best local similarity 74.3%; Pred. No. 9.2e-183;
Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;

QY 1 MGVFVVLSTATLFGSTGALGPRGNSHCPTVDGYOCFPEISHLWGTSPFSLADE 60
DB 1 MGVSAVLLPLLYLAGVTSGLAVASNOSTCPTVGOGYOCFSESHLWGOVAFFSLANE 60
QY 61 SAISPDVPGKCRVTFVQVLSRHGARYPTSSASKANSALIEAIOKNAFAKGYATLKYNN 120
DB 61 SAISPDVPGKCRVTFVQVLSRHGARYPTSSASKANSALIEAIOKNAFAKGYATLKYNN 120
QY 121 YITGADLTPFGQCMQWNSIKFYRRYKALRKIVFIFIRASGSDRYIASAEKFIGFQSA 180
DB 121 YITGADLTPFGQCMQWNSIKFYRRYKALRKIVFIFIRASGSDRYIASAEKFIGFQSA 180
QY 121 YISGADLTPFGQELVNSIKFYRSTLRNIIPIFISGSSSRVIAKGEKFIGFQST 180
DB 121 YISGADLTPFGQELVNSIKFYRSTLRNIIPIFISGSSSRVIAKGEKFIGFQST 180
QY 181 KLAIDPGANPHQASPVINVIIPGAGYNNLTDLHGLCTAFEESEIGDDVEANFTAVAPPIR 240
DB 181 KLAIDPGANPHQASPVINVIIPGAGYNNLTDLHGLCTAFEESEIGDDVEANFTAVAPPIR 240
QY 241 ARLEAHLPGVNLIDEDVYNNLMDCPFTVARTSDATQLSFCDLFTHDEMIQDYLIQSLG 300

DB 241 QRLNDLSGVTLTDEVTYLLDMGCFDITSTYDTKLSPPCDLFTHDEMIHYDYLOSLK 300
QY 301 KYVYGAGNPLGPAQGVGVFNELIARLTHSPVODHTSNHLDNSNPATPLNATLVDFS 360
DB 301 KYVYGAGNPLGPAQGVGVFNELIARLTHSPVODHTSNHLDNSNPATPLNATLVDFS 360
QY 361 HDNWTWSTFALGLYNGTKPLSTSVESIEETDGSASMTVPFAARAYVEMMOCEAEKEP 420
DB 361 HDNWTWSTFALGLYNGTKPLSTSVESIEETDGSASMTVPFAARAYVEMMOCEAEKEP 420
QY 421 LVRELVNDRVPLHGGVDKLGCRKRDVEGLSPARSAGWNECEFA 467
DB 421 LVRELVNDRVPLHGGVDKLGCRKRDVEGLSPARSAGWNECEFA 467

RESULT 6
US-08-609-426A-8
Sequence 8, Application US/08609426A
Patent No. 5830733
GENERAL INFORMATION:
APPLICANT: Nevalainen, Helena K.M.
APPLICANT: Paloheimo, Marja T.
APPLICANT: Miettinen-Oinonen, Arja S.K.
APPLICANT: Torkkeli, Tuula K.
APPLICANT: Cantrell, Michael
APPLICANT: Piddington, Christopher S.
APPLICANT: Rambosek, John A.
APPLICANT: Turunen, Marja K.
APPLICANT: Fagerstr m, Richard B.
APPLICANT: Houston, Christine S.
TITLE OF INVENTION: Production of Phytase Degrading Enzymes
TITLE OF INVENTION: in Trichoderma
NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox
STREET: 1100 New York Avenue, Suite 600
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/609,426A
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/923,724
FILING DATE: 31-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/496,155
FILING DATE: 19-MAR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/044,077
FILING DATE: 29-APR-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: UK 8610600
FILING DATE: 30-APR-1986
ATTORNEY/AGENT INFORMATION:
NAME: Reed Grant E.
REGISTRATION NUMBER: P-41,264
REFERENCE/DOCKET NUMBER: 1050, 0080001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid

TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-609-426a-8

Query Match 75.0%; Score 1852; DB 2; Length 467;
Best Local Similarity 74.3%; Pred. No. 9.2e-183;
Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;

QY 1 MGAVVLLSTATLFGSTGALGRGNSHSDTVDGSGYQCFPELISHLMGYSPFSLADE 60
DB 1 MGAVAVLLPYLLAGVTSGLAVPASRNSQSTCDIVDQGYQCFSESHLMGYAPFFSLANE 60
QY 61 SAISPDVPGKCRVTEVOVLSRHGARYPTSSAKAYSLALIAIOKNATPEKGYAFILKTYN 120
DB 61 SAISPDVPGKCRVTEVOVLSRHGARYPTSSAKAYSLALIAIOKNATPEKGYAFILKTYN 120
QY 121 YTLGADLTPFGGQOMVNSGIRKRYRKALARKIVPEIRASGSDRYASAEKFEIGFOST 180
DB 121 YSLGADLTPFGGQELVNSGIRKRYRESLTRNIIFFIRSSGSSRYIASGEKFEIGFOST 180
QY 181 KLADPGANPHQASPVINVIIPPEAGYNNITLDHGLCTAFESSELGDDVEANFTAVFAPPIR 240
DB 181 KLADPGANPHQASPVINVIIPPEAGYNNITLDHGLCTAFESSELGDDVEANFTAVFAPPIR 240
QY 241 ARLEAHLPGVNLDEDEVNLMDCPFDVYARTSDATOLSPFCDLFTHDEMIOYDYLQSLG 300
DB 241 ORLENDLSGVTLDTDEVYLMDCSFDTISTSTVDTKLSPFCDLFTHDEMIOYDYLQSLG 300
QY 301 KYGYGAGNPLGPAQGVGNELIARLTHSPVODHTSTNHLTDSNPATFPPLNATLYADFS 360
DB 301 KYGYGAGNPLGPAQGVGNELIARLTHSPVODHTSTNHLTDSNPATFPPLNATLYADFS 360
QY 361 HNTWVSIFALGLYNGTPISTTSVESIEETDGYASATVFFARAYEMMOCAEKEP 420
DB 361 HNGIISILFALGLYNGTPISTTSVESIEETDGYASATVFFARAYEMMOCAEKEP 420
QY 421 LVRVLYNDRVYPLHGGCVKLGRCRDPVEGLSPARSGGMAECSA 467
DB 421 LVRVLYNDRVYPLHGGCVKLGRCRDPVEGLSPARSGGMAECSA 467

US-08-374-652C-2
Sequence 2, Application US/08374652C
Patent No. 5634286
GENERAL INFORMATION:
APPLICANT: NEVALAINEN, HELENA K.M.
APPLICANT: PALOHEIMO, MARJA T.
APPLICANT: FAGERSTROM, RICHARD B.
APPLICANT: MIETTINEN-OINONEN, AKKA S.
APPLICANT: TURUNEN, MARJA K.
APPLICANT: RAMBOSEK, JOHN A.
APPLICANT: PIDDINGTON, CHRISTOPHER S.
APPLICANT: HOUSTON, CHRISTINE S.
APPLICANT: CANTRELL, MICHAEL A.
TITLE OF INVENTION: RECOMBINANT CELLS, DNA CONSTRUCTS,
TITLE OF INVENTION: VECTORS AND METHODS FOR EXPRESSING PHYTATE DEGRADING
NUMBER OF SEQUENCES: 94
CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 NEW YORK AVENUE, SUITE 600
CITY: WASHINGTON
STATE: DC
COUNTRY: USA
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/374,652C
FILING DATE: 24-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/07058
FILING DATE: 27-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/925,401
FILING DATE: 31-JUL-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: REED, GRANT E.
REGISTRATION NUMBER: 41,264
REFERENCE/DOCKET NUMBER: 1050,071001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2540
TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: not relevant
MOLECULE TYPE: protein
US-08-374-652C-2

Query Match 75.0%; Score 1852; DB 2; Length 467;
Best Local Similarity 74.3%; Pred. No. 9.2e-183;
Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;

QY 1 MGAVVLLSTATLFGSTGALGRGNSHSDTVDGSGYQCFPELISHLMGYSPFSLADE 60
DB 1 MGAVAVLLPYLLAGVTSGLAVPASRNSQSTCDIVDQGYQCFSESHLMGYAPFFSLANE 60
QY 61 SAISPDVPGKCRVTEVOVLSRHGARYPTSSAKAYSLALIAIOKNATPEKGYAFILKTYN 120
DB 61 SAISPDVPGKCRVTEVOVLSRHGARYPTSSAKAYSLALIAIOKNATPEKGYAFILKTYN 120
QY 121 YTLGADLTPFGGQOMVNSGIRKRYRKALARKIVPEIRASGSDRYASAEKFEIGFOST 180
DB 121 YSLGADLTPFGGQELVNSGIRKRYRESLTRNIIFFIRSSGSSRYIASGEKFEIGFOST 180
QY 181 KLADPGANPHQASPVINVIIPPEAGYNNITLDHGLCTAFESSELGDDVEANFTAVFAPPIR 240
DB 181 KLADPGANPHQASPVINVIIPPEAGYNNITLDHGLCTAFESSELGDDVEANFTAVFAPPIR 240
QY 241 ARLEAHLPGVNLDEDEVNLMDCPFDVYARTSDATOLSPFCDLFTHDEMIOYDYLQSLG 300
DB 241 ORLENDLSGVTLDTDEVYLMDCSFDTISTSTVDTKLSPFCDLFTHDEMIOYDYLQSLG 300
QY 301 KYGYGAGNPLGPAQGVGNELIARLTHSPVODHTSTNHLTDSNPATFPPLNATLYADFS 360
DB 301 KYGYGAGNPLGPAQGVGNELIARLTHSPVODHTSTNHLTDSNPATFPPLNATLYADFS 360
QY 361 HNTWVSIFALGLYNGTPISTTSVESIEETDGYASATVFFARAYEMMOCAEKEP 420
DB 361 HNGIISILFALGLYNGTPISTTSVESIEETDGYASATVFFARAYEMMOCAEKEP 420
QY 421 LVRVLYNDRVYPLHGGCVKLGRCRDPVEGLSPARSGGMAECSA 467
DB 421 LVRVLYNDRVYPLHGGCVKLGRCRDPVEGLSPARSGGMAECSA 467

US-08-151-574-32
Sequence 32, Application US/08151574
Patent No. 5436156
GENERAL INFORMATION:
APPLICANT: ROBERT F.M. VAN GORCOM
APPLICANT: WILLEM VAN HARTINGSVELDT
APPLICANT: PETRUS A. VAN PARIDON

APPLICANT: Annemarie E. Veenstra
 APPLICANT: Rudolf G.M. Luttin
 APPLICANT: Gerardus Selten
 TITLE OF INVENTION: Cloning and Expression of Microbial
 TITLE OF INVENTION: Phytase
 NUMBER OF SEQUENCES: 52
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Morrison & Foerster
 STREET: 545 Middlefield Road, Suite 200
 CITY: Menlo Park
 STATE: California
 COUNTRY: USA
 ZIP: 94025-3471
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.25
 SOFTWARE:
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/151,574
 FILING DATE:
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/688,578
 FILING DATE: 24-MAY-1991
 ATTORNEY/AGENT INFORMATION:
 NAME: Murashige, Kate H.
 REGISTRATION NUMBER: 29,959
 REFERENCE/DOCKET NUMBER: 24615-20026.00
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 415-327-7250
 INFORMATION FOR SEQ ID NO: 32:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 467 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-151-574-32

Query Match 74.9%; Score 1848; DB 1; Length 467;
 Best Local Similarity 74.3%; Pred. No. 2.4e-182;
 Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;
 QY 1 MGCVVLLSIATLFSTSGTALGPRGNHSCDVTVDGTCQCPPEISHLMGTYSPFSLADE 60
 1 MGVSALLPLLYLSGVTSLGAVPASRNOSCDVTVDGTCQCPPEISHLMGTYSPFSLANE 60
 QY 61 SAISPDVPGRCRTFVQVLSRHGARYPTSSASKAYSALIEAIQKNNAFAKGYAFLKTYN 120
 61 SVISPEVPAGRCRTFVQVLSRHGARYPTSSASKAYSALIEAIQKNNAFAKGYAFLKTYN 120
 QY 121 YTGADDLTPFGEGQVNGSGIKFYRRYKALARKIVPFIIRASGSDRVIASAKFTIEGQSA 180
 121 YSLGADDLTPFGEGQVNGSGIKFYRRYKALARKIVPFIIRASGSDRVIASAKFTIEGQST 180
 QY 181 KLADPGANPHQASPVINVIIPBAGYNNTLDHGLCTAFEESELGDDVANTFAVAPPIR 240
 181 KLADPPRAGPQSSPKIDVIVISEASSNNTLDHGLCTAFEESELGDDVANTFAVAPPIR 240
 QY 241 ARLEAHLPGVNLTDDEVNIMDMCPDVTARTSDATQSLSPFCDLFTHEHWIOYDYLQSLG 300
 241 QRLNDLSGVTLDTEFTVYLMKCSPTDITSTVDTKLSPFCDLFTHEHWINYDYLQSLK 300
 QY 301 KYVYGAGNPLGPAQGYGVFVNEILARLTHSPVHDITSSNHTDSSPAFTPLNSTLYADPS 360
 301 KYVYGAGNPLGPAQGYGVFVNEILARLTHSPVHDITSSNHTDSSPAFTPLNSTLYADPS 360
 QY 361 HDNMGVSTFPAFLGLYNGTKPLSTTSVESIETDGSASWTVFPAARAVYEMMQCEAKEP 420
 361 HDNGIISTLPAFLGLYNGTKPLSTTIVNITQDGFSSANTVFPASRLYEMMQCEAKEP 420

QY 421 LVRYLVNDRVPLHGGCYDKIGRCKRDDEVEGLSPARGGNWEECPA 467
 421 LVRYLVNDRVPLHGGCPVDALGRCTRDSFVGLSPARGGNWEECPA 467
 RESULT 9
 US-08-146-424-20
 ; Sequence 20, Application US/08146424
 ; Patent No. 5593963
 ; GENERAL INFORMATION:
 ; APPLICANT: VAN OIJEN, ALBERT J. J.
 ; APPLICANT: RIETVELD, KRIJN
 ; APPLICANT: HOEKEMA, ANDREAS
 ; APPLICANT: PEN, JAN
 ; APPLICANT: SIMONS, PETER C.
 ; APPLICANT: VERWERD, TONIS C.
 ; TITLE OF INVENTION: THE EXPRESSION OF PHYTASE IN PLANTS
 ; NUMBER OF SEQUENCES: 31
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: MORRISON & FOERSTER
 ; STREET: 755 Page Mill Road
 ; CITY: Palo Alto
 ; STATE: California
 ; COUNTRY: USA
 ; ZIP: 94304-1018
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patentin Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/146,424
 ; FILING DATE: 02-NOV-1993
 ; CLASSIFICATION: 435
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: KENNEDY, BILL
 ; REGISTRATION NUMBER: 33,407
 ; REFERENCE/DOCKET NUMBER: 44615-20011.24
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (415) 813-5600
 ; TELEFAX: (415) 494-0792
 ; TELEX: 706141
 ; INFORMATION FOR SEQ ID NO: 20:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 467 amino acids
 ; TYPE: amino acid
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; US-08-146-424-20

Query Match 74.9%; Score 1848; DB 1; Length 467;
 Best Local Similarity 74.3%; Pred. No. 2.4e-182;
 Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;
 QY 1 MGCVVLLSIATLFSTSGTALGPRGNHSCDVTVDGTCQCPPEISHLMGTYSPFSLADE 60
 1 MGVSALLPLLYLSGVTSLGAVPASRNOSCDVTVDGTCQCPPEISHLMGTYSPFSLANE 60
 QY 61 SAISPDVPGRCRTFVQVLSRHGARYPTSSASKAYSALIEAIQKNNAFAKGYAFLKTYN 120
 61 SVISPEVPAGRCRTFVQVLSRHGARYPTSSASKAYSALIEAIQKNNAFAKGYAFLKTYN 120
 QY 121 YTGADDLTPFGEGQVNGSGIKFYRRYKALARKIVPFIIRASGSDRVIASAKFTIEGQSA 180
 121 YSLGADDLTPFGEGQVNGSGIKFYRRYKALARKIVPFIIRASGSDRVIASAKFTIEGQST 180
 QY 181 KLADPGANPHQASPVINVIIPBAGYNNTLDHGLCTAFEESELGDDVANTFAVAPPIR 240
 181 KLADPPRAGPQSSPKIDVIVISEASSNNTLDHGLCTAFEESELGDDVANTFAVAPPIR 240
 QY 241 ARLEAHLPGVNLTDDEVNIMDMCPDVTARTSDATQSLSPFCDLFTHEHWIOYDYLQSLG 300
 241 QRLNDLSGVTLDTEFTVYLMKCSPTDITSTVDTKLSPFCDLFTHEHWINYDYLQSLK 300

Db 241 ORLENDLSCVTLTDEVTYIAMDMSFDTISTSTVDTKLSPFCDLTFHDEWINDYLSQSLK 300
QY 301 KYYGAGNPLGPAQGVGFVNNELIARLTHSPVODHTSTNHTLDSNPATPLNATLYADPS 360
Db 301 KYYGAGNPLGPAQGVGFVNNELIARLTHSPVODHTSTNHTLDSNPATPLNATLYADPS 360
QY 361 HONTWMSIFPALGLYNGIKPLSTTSVESIEETDGYASWTVPFARAVEMMOCEAKEP 420
Db 361 HDNGIISILFALGLYNGIKPLSTTSVESIEETDGYASWTVPFARAVEMMOCEAKEP 420
QY 421 LVRVLVNDRVPLHGGCVADKGRCKRDPFVEGLSPARSGGMAECFA 467
Db 421 LVRVLVNDRVPLHGGCVADKGRCKRDPFVEGLSPARSGGMAECFA 467

RESULT 10
US-08-693-709-2
; Sequence 2, Application US/08693709
; Patent No. 5770413
; GENERAL INFORMATION:
; APPLICANT: VAN OOIJEN, ALBERT J.J.
; APPLICANT: RIETVELD, KRIJN
; APPLICANT: HOEKEMA, ANDREAS
; APPLICANT: PEN, JAN
; APPLICANT: SIMONS, PETER C.
; APPLICANT: VERHOED, TEUNIS C.
; TITLE OF INVENTION: THE EXPRESSION OF PHYTASE
; TITLE OF INVENTION: IN PLANTS
; NUMBER OF SEQUENCES: 28
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORRISON & FOERSTER
; STREET: 755 PAGE MILL ROAD
; CITY: PALO ALTO
; STATE: CA
; COUNTRY: USA
; ZIP: 94304-1018
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/693,709
; FILING DATE: 07-Aug-1996
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/146,424
; FILING DATE: 02-NOV-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 24615-20011.10
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-813-5600
; TELEFAX: 415-494-0792
; TELEX: 706141
; INFORMATION FOR SEQ. ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 467 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: Internal
; FEATURE:
; NAME/KEY: Signal Sequence
; LOCATION: 1...23
; OTHER INFORMATION:
; US-08-693-709-2

Query Match 74.9%; Score 1848; DB 1; Length 467;
Best Local Similarity 74.3%; Pred. No. 2,4e-182;

Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;
QY 1 MGVEVLLIATLTGSGTALGPRGNSHSDVDGQCFPRISHLMGTSPFSLADE 60
Db 1 MGSAVALLPLYLISGVLAVPASRMSQSDVDGQCFPRISHLMGTSPFSLADE 60
QY 61 SATSPDVKCRQYTFVQVLSRGRARPTSSASAYSALEIAOKNATPKYAFKTYN 120
Db 61 SATSPDVKCRQYTFVQVLSRGRARPTSSASAYSALEIAOKNATPKYAFKTYN 120
QY 121 YTLGADLTPFGDQOMNSGIRKFRYRKALARKIVPFRASGDRYASAEKFTBFOQA 180
Db 121 YSLGADLTPFGDQELVNSGIRKFRYRKALARKIVPFRASGDRYASAEKFTBFOQA 180
QY 181 KLADPGANPHQASDVINVIIPGAGYNTLDHGLCTAFESBEGDVEANFTAVFAPPR 240
Db 181 KLADPGANPHQASDVINVIIPGAGYNTLDHGLCTAFESBEGDVEANFTAVFAPPR 240
QY 241 ARLEAHLPGVNLTDEYVNLMDKCPEDYARTSDAQLSPFCDLTFHDEWINDYLSQSLK 300
Db 241 ORLENDLSCVTLTDEVTYIAMDMSFDTISTSTVDTKLSPFCDLTFHDEWINDYLSQSLK 300
QY 301 KYYGAGNPLGPAQGVGFVNNELIARLTHSPVODHTSTNHTLDSNPATPLNATLYADPS 360
Db 301 KYYGAGNPLGPAQGVGFVNNELIARLTHSPVODHTSTNHTLDSNPATPLNATLYADPS 360
QY 361 HONTWMSIFPALGLYNGIKPLSTTSVESIEETDGYASWTVPFARAVEMMOCEAKEP 420
Db 361 HDNGIISILFALGLYNGIKPLSTTSVESIEETDGYASWTVPFARAVEMMOCEAKEP 420
QY 421 LVRVLVNDRVPLHGGCVADKGRCKRDPFVEGLSPARSGGMAECFA 467
Db 421 LVRVLVNDRVPLHGGCVADKGRCKRDPFVEGLSPARSGGMAECFA 467

RESULT 11
US-08-419-448-32
; Sequence 32, Application US/08419448
; Patent No. 5863533
; GENERAL INFORMATION:
; APPLICANT: Robert F.M. Van Gorcom
; APPLICANT: Willem Van Harlingsveldt
; APPLICANT: Petrus A. Van Paridon
; APPLICANT: Annemarie E. Veenstra
; APPLICANT: Rudolf G.M. Juttin
; TITLE OF INVENTION: Cloning and Expression of Microbial
; TITLE OF INVENTION: Phytase
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Morrison & Foerster
; STREET: 2000 Pennsylvania Ave. N.W., Suite 5500
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20006-1888
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/419,448
; FILING DATE: 10-Apr-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Murashige, Kate H.
; REGISTRATION NUMBER: 29,959
; REFERENCE/DOCKET NUMBER: 24615-20026.10
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-887-1500
; INFORMATION FOR SEQ ID NO: 32:

SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-419-448-32

Query Match 74.9%; Score 1848; DB 2; Length 467;
Best Local Similarity 74.3%; Pred. No. 2,4e-182;
Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;

QY 1 MGVEFVLLSIATLFGSTSGTALGPRGNSHSCDPTVDGQYQCFPEISHLWGTYSPFSLADE 60
DB 1 MGVSALLPLYLISGVTSLAVPASRNOSCDPTVDGQYQCFSESHLMGQYAPFSLANE 60
QY 61 SAISDPVPGKGRVTFVQVLSRHGARYPTSSASKAYSALIEIOKNATAFKGYAFLKTYN 120
DB 61 SVISPEVPAGCRVTFVQVLSRHGARYPTDSKGGKYSALIEIOKNATFEDKRYAFLKTYN 120
QY 121 YTLGADLTPFGEDQOMVNSGKIFRYRYKALARKIPTIRASGSDRVITASAEKTEGFQSA 180
DB 121 YSLGADLTPFGEDQELVNSGKIFRYRYKALARKIPTIRASGSDRVITASAEKTEGFQSA 180
QY 181 KLADPGANPHOASPVYINVIIEGAGYNNITLDHGLCTAFEESELGDVEANFTAVAPRIR 240
DB 181 KLADPGANPHOASPVYINVIIEGAGYNNITLDHGLCTAFEESELGDVEANFTAVAPRIR 240
QY 241 ARLEAHLPGVNLTDDEVYVNLMDKCPFDVTARTSDATQLSPECDLFTHDEMIQDYLOSLG 300
DB 241 QRLNDLSGVTLLDDEVYVNLMDKCPFDVTARTSDATQLSPECDLFTHDEMIQDYLOSLG 300
QY 301 KYYGAGNPLGPAQGVGFVNELIARLTHSPYODHTSNTHTLDSNPATFPLNATLYADFS 360
DB 301 KYYGAGNPLGPAQGVGFVNELIARLTHSPYODHTSNTHTLDSNPATFPLNATLYADFS 360
QY 361 HDNTWVSIFPALGLYNGTKRPLSTTSVESIEETDGSASMTVPFAARAYEMMOCEAKEP 420
DB 361 HDNTWVSIFPALGLYNGTKRPLSTTSVESIEETDGSASMTVPFAARAYEMMOCEAKEP 420
QY 421 LVRVLVNDRVVPLHGGGVYDKLGRCKRDPFVEGLSFARSGGMMEECPA 467
DB 421 LVRVLVNDRVVPLHGGGVYDKLGRCKRDPFVEGLSFARSGGMMEECPA 467

RESULT 12
US-08-819-825-3
Sequence 3, Application US/08819825
Patent No. 5866118
GENERAL INFORMATION:
APPLICANT: Berka, Randy M.
APPLICANT: Klotz, Alan V.
TITLE OF INVENTION: Polypeptides Having Phytase Activity
TITLE OF INVENTION: And Nucleic Acids Encoding Same
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESS: No. 58661180 No. 5866118disk of No. 5866118th America, Inc.
STREET: 405 Lexington Avenue, Suite 6400
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10174-6401
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/819, 825
FILING DATE: 18-MAR-1997
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:

NAME: lambdis, Elias J
REGISTRATION NUMBER: 33,728
REFERENCE/DOCKET NUMBER: 4758, 200-US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 867 0123
TELEFAX: 212 867 0298
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-08-819-825-3

Query Match 74.9%; Score 1848; DB 2; Length 467;
Best Local Similarity 74.3%; Pred. No. 2,4e-182;
Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;

QY 1 MGVEFVLLSIATLFGSTSGTALGPRGNSHSCDPTVDGQYQCFPEISHLWGTYSPFSLADE 60
DB 1 MGVSALLPLYLISGVTSLAVPASRNOSCDPTVDGQYQCFSESHLMGQYAPFSLANE 60
QY 61 SAISDPVPGKGRVTFVQVLSRHGARYPTSSASKAYSALIEIOKNATAFKGYAFLKTYN 120
DB 61 SVISPEVPAGCRVTFVQVLSRHGARYPTDSKGGKYSALIEIOKNATFEDKRYAFLKTYN 120
QY 121 YTLGADLTPFGEDQOMVNSGKIFRYRYKALARKIPTIRASGSDRVITASAEKTEGFQSA 180
DB 121 YSLGADLTPFGEDQELVNSGKIFRYRYKALARKIPTIRASGSDRVITASAEKTEGFQSA 180
QY 181 KLADPGANPHOASPVYINVIIEGAGYNNITLDHGLCTAFEESELGDVEANFTAVAPRIR 240
DB 181 KLADPGANPHOASPVYINVIIEGAGYNNITLDHGLCTAFEESELGDVEANFTAVAPRIR 240
QY 241 ARLEAHLPGVNLTDDEVYVNLMDKCPFDVTARTSDATQLSPECDLFTHDEMIQDYLOSLG 300
DB 241 QRLNDLSGVTLLDDEVYVNLMDKCPFDVTARTSDATQLSPECDLFTHDEMIQDYLOSLG 300
QY 301 KYYGAGNPLGPAQGVGFVNELIARLTHSPYODHTSNTHTLDSNPATFPLNATLYADFS 360
DB 301 KYYGAGNPLGPAQGVGFVNELIARLTHSPYODHTSNTHTLDSNPATFPLNATLYADFS 360
QY 361 HDNTWVSIFPALGLYNGTKRPLSTTSVESIEETDGSASMTVPFAARAYEMMOCEAKEP 420
DB 361 HDNTWVSIFPALGLYNGTKRPLSTTSVESIEETDGSASMTVPFAARAYEMMOCEAKEP 420
QY 421 LVRVLVNDRVVPLHGGGVYDKLGRCKRDPFVEGLSFARSGGMMEECPA 467
DB 421 LVRVLVNDRVVPLHGGGVYDKLGRCKRDPFVEGLSFARSGGMMEECPA 467

RESULT 13
US-09-163-642-3
Sequence 3, Application US/09163642
Patent No. 6221644
GENERAL INFORMATION:
APPLICANT: Berka, Randy M.
APPLICANT: Klotz, Alan V.
TITLE OF INVENTION: Polypeptides Having Phytase Activity
TITLE OF INVENTION: And Nucleic Acids Encoding Same
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESS: No. 62216440 No. 6221644disk of No. 6221644th America, Inc.
STREET: 405 Lexington Avenue, Suite 6400
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10174-6401
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible

OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/163,642
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/819,825
FILING DATE: 18-MAR-1997
ATTORNEY/AGENT INFORMATION:
NAME: Lambiris, Elias J.
REGISTRATION NUMBER: 33,728
REFERENCE/DOCKET NUMBER: 4758,200-US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 867 0123
TELEFAX: 212 867 0298
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-09-163-642-3

Query Match 74.9%; Score 1848; DB 4; Length 467;
Best Local Similarity 74.3%; Pred. No. 2.4e-182;
Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;

QY 1 MGAVFVLLSIATLFGSTGALGPRGNSHSCDVTGCGYOCFPELSHLMGYSPEFSLADE 60
DB 1 MGAVFVLLSIATLFGSTGALGPRGNSHSCDVTGCGYOCFPELSHLMGYSPEFSLADE 60
QY 61 SAISPDYKRCGRYTFVOVLSRHGARYPTSSAKAYSALIEAIOKNATAFKGYAFLKTYN 120
DB 61 SVISPEVPACGRYFAQVLSRHGARYPTSSAKAYSALIEAIOKNATAFKGYAFLKTYN 120
QY 121 YTLGADDLTPFGEOOMVNSGIRKRYRALKARKIVPFRASGSDRYASAEKIEGQSA 180
DB 121 YTLGADDLTPFGEOOMVNSGIRKRYRALKARKIVPFRASGSDRYASAEKIEGQSA 180
QY 181 KLADPGANPHQASPVINVIIPGAGYNNLTHGLCTAFEESELGDDVEANFTAFAPPIR 240
DB 181 KLADPGANPHQASPVINVIIPGAGYNNLTHGLCTAFEESELGDDVEANFTAFAPPIR 240
QY 241 ARLEAHLPGVNLTDDEVYNNLMDKCPEDTVARTSDATQLSPFCDLFTHDEMIQYDYLQSLG 300
DB 241 ARLEAHLPGVNLTDDEVYNNLMDKCPEDTVARTSDATQLSPFCDLFTHDEMIQYDYLQSLG 300
QY 301 KYGAGAGNPLGPAQGVGFVNELIARLTHSPVODHTSTNHHTLDSNPATPPLNATLYADFS 360
DB 301 KYGAGAGNPLGPAQGVGFVNELIARLTHSPVODHTSTNHHTLDSNPATPPLNATLYADFS 360
QY 361 HDNTMVSIFPALGLYNGTKPLSTTSVESIETDGYASWTVPFAARAYEMMOCEAKEP 420
DB 361 HDNTMVSIFPALGLYNGTKPLSTTSVESIETDGYASWTVPFAARAYEMMOCEAKEP 420
QY 421 LVRVLYNDRVPLHGGCVNKLGRCKRDPFVEGLSPFARSGNMEECPA 467
DB 421 LVRVLYNDRVPLHGGCVNKLGRCKRDPFVEGLSPFARSGNMEECPA 467

RESULT 14
US-09-233-510-32
Sequence 32, Application US/09233510
Patent No. 6350602
GENERAL INFORMATION:
APPLICANT: Robert F.M. Van Gorcom
APPLICANT: Willem Van Hartingsveldt
APPLICANT: Petrus A. Van Paridon
APPLICANT: Annemarie E. Veenstra
APPLICANT: Rudolf G.M. Luttin
APPLICANT: Gerardus Selten

TITLE OF INVENTION: Cloning and Expression of Microbial
TITLE OF INVENTION: Phytase
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Morrison & Foerster
STREET: 545 Middlefield Road, Suite 200
CITY: Menlo Park
STATE: California
COUNTRY: USA
ZIP: 94025-3471
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/233,510
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/688,578
FILING DATE: 24-MAY-1991
ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 24615-20026,00
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-327-7250
TELEFAX: 415-327-2951
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
LENGTH: 467 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-233-510-32

Query Match 74.9%; Score 1848; DB 4; Length 467;
Best Local Similarity 74.3%; Pred. No. 2.4e-182;
Matches 347; Conservative 42; Mismatches 78; Indels 0; Gaps 0;

QY 1 MGAVFVLLSIATLFGSTGALGPRGNSHSCDVTGCGYOCFPELSHLMGYSPEFSLADE 60
DB 1 MGAVFVLLSIATLFGSTGALGPRGNSHSCDVTGCGYOCFPELSHLMGYSPEFSLADE 60
QY 61 SAISPDYKRCGRYTFVOVLSRHGARYPTSSAKAYSALIEAIOKNATAFKGYAFLKTYN 120
DB 61 SVISPEVPACGRYFAQVLSRHGARYPTSSAKAYSALIEAIOKNATAFKGYAFLKTYN 120
QY 121 YTLGADDLTPFGEOOMVNSGIRKRYRALKARKIVPFRASGSDRYASAEKIEGQSA 180
DB 121 YTLGADDLTPFGEOOMVNSGIRKRYRALKARKIVPFRASGSDRYASAEKIEGQSA 180
QY 181 KLADPGANPHQASPVINVIIPGAGYNNLTHGLCTAFEESELGDDVEANFTAFAPPIR 240
DB 181 KLADPGANPHQASPVINVIIPGAGYNNLTHGLCTAFEESELGDDVEANFTAFAPPIR 240
QY 241 ARLEAHLPGVNLTDDEVYNNLMDKCPEDTVARTSDATQLSPFCDLFTHDEMIQYDYLQSLG 300
DB 241 ARLEAHLPGVNLTDDEVYNNLMDKCPEDTVARTSDATQLSPFCDLFTHDEMIQYDYLQSLG 300
QY 301 KYGAGAGNPLGPAQGVGFVNELIARLTHSPVODHTSTNHHTLDSNPATPPLNATLYADFS 360
DB 301 KYGAGAGNPLGPAQGVGFVNELIARLTHSPVODHTSTNHHTLDSNPATPPLNATLYADFS 360
QY 361 HDNTMVSIFPALGLYNGTKPLSTTSVESIETDGYASWTVPFAARAYEMMOCEAKEP 420
DB 361 HDNTMVSIFPALGLYNGTKPLSTTSVESIETDGYASWTVPFAARAYEMMOCEAKEP 420
QY 421 LVRVLYNDRVPLHGGCVNKLGRCKRDPFVEGLSPFARSGNMEECPA 467
DB 421 LVRVLYNDRVPLHGGCVNKLGRCKRDPFVEGLSPFARSGNMEECPA 467

Db 421 LVRVLYNDRVPLHGCPCVDALGRCTRDSEVVRGLSFARSGGDMACCPA 467

RESULT 15
US-09-155-855-3
Sequence 3, Application US/09155855
Patent No. 6139902

GENERAL INFORMATION:

APPLICANT: KONDO, Hidemasa

APPLICANT: ANAZAWA, Hideharu

APPLICANT: KANEKO, Syunichi

APPLICANT: NAGASHIMA, Tadashi

APPLICANT: TANGE, Tatsuya

TITLE OF INVENTION: NOVEL PHYTASE AND GENE ENCODING SAID PHYTASE

FILE REFERENCE: 81356/124

CURRENT APPLICATION NUMBER: US/09/155,855

CURRENT FILING DATE: 1998-10-05

EARLIER APPLICATION NUMBER: WO PCT/JP97/01175

EARLIER FILING DATE: 1997-04-04

EARLIER APPLICATION NUMBER: JP 084314

NUMBER OF SEQ ID NOS: 7

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 3

LENGTH: 467

TYPE: PRT

ORGANISM: Aspergillus niger

US-09-155-855-3

Query Match 74.6%; Score 1841; DB 4; Length 467;

Best Local Similarity 73.2%; Pred. No. 1.3e-181; Matches 342; Conservative 49; Mismatches 76; Indels 0; Gaps 0;

QY 1 MGEFVLLSIATLEFGSTGALGPRGNSHSCDTVDGQCPPEISHLMGYSPEFSLADE 60
DB 1 MGVSAVLLPLVILSGVTSGLAVPASRNSQSTCDTVDOGYCFSETHLMGQYAPFFSLANK 60
QY 61 SAISPDVPRGCRVTFVQVLSRHRGARYPTSSASKAYSALIEAIQKNATAFKGYAFKLTYN 120
DB 61 SAISPDVPRGCRVTFVQVLSRHRGARYPTSSASKAYSALIEAIQKNATAFKGYAFKLTYN 120
QY 121 YTLGADDLPRGEGQMVNSGKIFERYRKALARKIYPTFRAGSDRVIASAEKFTIEGFOSA 180
DB 121 YSLGADDLPRGEGQMVNSGKIFERYRKALARKIYPTFRAGSDRVIASAEKFTIEGFOSA 180
QY 181 KLADPGANPHQASPVYINYLIEGAGYNNTLDHGLCTAFEESELGDDVEANFTAVFAPPIR 240
DB 181 KLADPGANPHQASPVYINYLIEGAGYNNTLDHGLCTAFEESELGDDVEANFTAVFAPPIR 240
QY 241 ARLEAHLGCVNITDEEDVYNLMDMCPFDVARTSDATOLSPFCDLFTHEWTOYDIOSLG 300
DB 241 ARLEAHLGCVNITDEEDVYNLMDMCPFDVARTSDATOLSPFCDLFTHEWTOYDIOSLG 300
QY 301 KYGGAGNPLPGPAGVGVNELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
DB 301 KYGGAGNPLPGPAGVGVNELLARLTHSPYODHTSTNHTLDSNPATFPLNATLYADFS 360
QY 361 HDNTWVSIFALGLYNGTRPLSTSVESIEETDGYASMTVPFAARAYVEMOCEAEKEP 420
DB 361 HDNTWVSIFALGLYNGTRPLSTSVESIEETDGYASMTVPFAARAYVEMOCEAEKEP 420
QY 421 LVRVLYNDRVPLHGCPCVDALGRCTRDSEVVRGLSFARSGGDMACCPA 467
DB 421 LVRVLYNDRVPLHGCPCVDALGRCTRDSEVVRGLSFARSGGDMACCPA 467

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